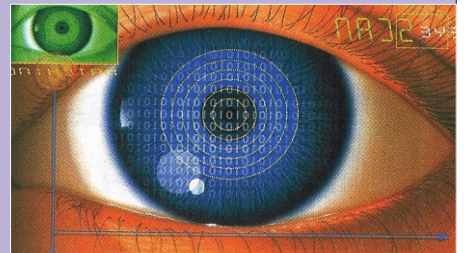


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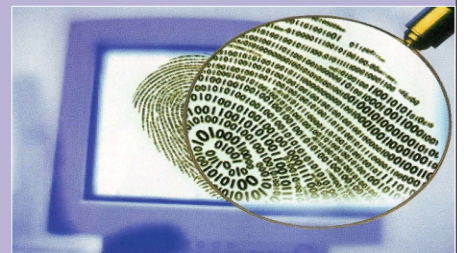


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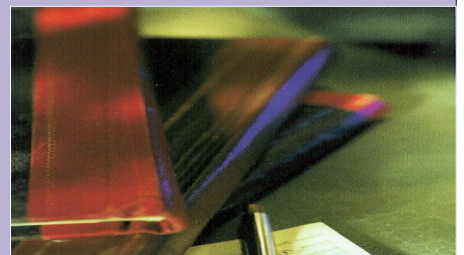
Vistas



In Focus



Fact File



Probe



Reseech

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"OORJA", is an incredibly potent term. Meaning 'energy' in Sanskrit, "OORJA" is also the name of a Vedic deity, who in many ancient and modern scriptures has been compared with Uzza (Shakti as Venus) in Arabic and Divine Energy in English. "OORJA", our Journal, signifies a confluence of diverse cultures and assorted intelligence to stir up the cerebral powers of its readers. It is envisaged to act as an energizer to replenish and refuel the reservoir of information, epitomizing the vigour and vitality that we aspire to infuse and inculcate in the process and progression of learning.

The Journal comprises five sections - *Vistas*, a segment carrying research articles and papers; *In Focus*, a collection of concepts & trends in Management & IT; *Fact File*, a compilation of business history; *Probe*, comprising reviews of new & existing publications and *Revel*, a reproduction of research findings.

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oorja



Not very long ago many Indians who would have otherwise hesitated to use a card at a machine to withdraw money from their bank account, have almost got out of the habit of standing in a queue to withdraw money. The weight of many Indian wallets that witnessed paper money and coins is now accounted for by plastic money that has become favored over cash. Life without cards seems to be unimaginable, with credit, debit, cash and loyalty cards dominating our lives. Millions of Indians are happy swiping their cards availing discounts at retail outlets, making transactions at petrol pumps, paying for membership at a book store or hospital services. Thanks to the widespread distribution of credit, debit and other cards as the list seems to go on.

Most card carrying Indians, as elsewhere in the world now have 3 or 4 cards. Compared to the rest of the world, the

total number of cards is small and the total spend per card is also small. Card usage still remains low in India with a total spending of about ₹ 75,000 crores (\$ 17 billion) in the year that ended in March. Central Bank data reveal this equivalent to just four percent of retail sales in an economy where more than 90 percent sales happen to be in the mom and pop stores. The year between 2005 and 2007 witnessed a jump by 50 percent peaking that year at more than 26 million. After the recent financial crisis it fell to approximately 18 million.

Though the spending habits of Indians are rising steadily with more people eating out at expensive restaurants, booking Air Tickets and paying cell phone bills online, the Indian consumers on the whole, are yet to embrace the thought of using credit cards. Credit cards are mostly used by the urban, affluent Indian customers.

Indians generally do not like to borrow and hence most card users tend to use debit cards, where their accounts are immediately debited once a card is used. Only thirty percent of the Indians carry balance on a month to month basis resulting in Bank Fees, while much higher rates are witnessed in many economies. In a different context, almost 80 percent of cell phone users in India prefer to use prepaid cards, rather than be billed later. As with phones, the usage of cards will also probably explode when prepaid cards start becoming widely available. Also, with the wide penetration of mobile phones, India might as well jump the stage of issuing plastic cards, to create electronic cards carried on cell phones.

But whichever way the market moves will make a little difference as the Industry involves players catering to all intents and purposes facilitating platforms that enable banks to offer a wide range of payment and transfer services that the customers want. At the first instance, the fees might look small but when multiplied by millions of transactions a day, it can be a very profitable business. Also the net interest margins in credit cards in India are around 23 percent, compared with 2.5 to 4 percent on other loans making it a very interesting product for the Banks as it yields good fees income from transaction and service charges.

Given the size and role played by the payment platforms, Indian Banks need to evade from a repeat of 2006-2008 where in aggressive competition had led to poor credit quality with the delinquency rates on cards mounting to nearly 8 or 9 percent in 2009 and 2010. One of the reasons must have been novelty, with many consumers spending their way into trouble with their first cards, forcing the banks to cancel cards and cut credit limits shifting focus to safer but less profitable secured loans. The risk remains too high as many banks chase the same set of customers increasing the chances of customers getting over leveraged.

All said and done the demography of India stands to play a crucial role in the forthcoming demand of plastic cards in all sectors including the Banking. The journey from cash to cashless is still on with not only the debit and credit cards, but also the cash and loyalty cards playing an important role in transforming the transactions in times to come.

Dr. Ashok Gupta
Director

FROM THE
DIRECTOR



EDITOR'S NOTE

It gives me great pleasure in presenting before you the 24th Issue of oorja which has been blessed all through with encouraging support from its readers. oorja has come a long way in its journey towards epitomizing new ideas, concepts, techniques and practices. The credit goes to our readers and contributors who have motivated us time and again with their feedback and contributions making us present a promising assortment of themes and ideas.

The current issue again is definitely an energizer replenishing the Reservoir of Information through its various sections gifting our readers a unique experience.

Vistas and *Research* packaged uniquely with articles on topics as broad as Employee Engagement, Child labor and Macro Economic Factors on Insurance Innovation in India prove to be a worthwhile Reading. The paper on "Conflict segment of women employees" gives us a broad picture of the conflict experiences of Women Employees in IT Industry. The article on "Consumer preferences and Buying Behaviour of Deodorants" is worth a reading as it talks about strategies optimizing the potential of Deodorant Industry.

In focus with its innovative touch as always presents new concepts and paradigms in the field of Management and IT. *Probe* fulfills its promise with the standard flavour and variety talking about the Nobel Laureate Dr. Amartya Sen's "The idea of Justice" and "Beautiful Data" by Tomy Segaran and Jeff Hammerbacher. *Fact File* packaged with its usual punch gives a presentation on Bharati Enterprises.

Happy Reading!!

Dr. Manju Nair
Editor-in-Chief

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In this Issue

**GOOD IDEAS ARE
NOT ADOPTED
AUTOMATICALLY.
THEY MUST BE
DRIVEN INTO
PRACTICE WITH
COURAGEOUS
PATIENCE.**

EMPLOYEE ENGAGEMENT IN MODERN PROSPECTIVE - CASE STUDY OF BEARING MANUFACTURING COMPANIES OF INDIA

DR. N.K. SHARMA

Vistas

Employee engagement is the level of commitment an employee has towards his organization and its values. An engaged employee is aware of business context and works with colleagues to improve performance within the job for the benefit of the organization. The organization must work to develop and nurture engagement, which requires a two-way relationship between employer and employee. Thus Employee Engagement is a barometer that determines the association of an employee with his organization.

Dr. N.K. Sharma is Former Professor & Head, Dept. of Commerce, University of Rajasthan, Jaipur

Employee engagement is the level of commitment an employee has towards his organization and its values. An engaged employee is aware of business context and works with colleagues to improve performance within the job for the benefit of the organization. The organization must work to develop and nurture engagement, which requires a two-way relationship between employer and employee. Thus Employee Engagement is a barometer that determines the association of an employee with his organization.

Research Methodology

In present research seven bearing companies are selected from different parts of the country, which has highest capital employed on 31st March 2011.

Data Collection

This study is based on the primary data i.e through the questionnaires filled up by the employees of selected companies.

Objectives of the Study

The main objective of my research study is to find out the level of Employee Engagement in selected companies, the secondary objectives are as under:

- To measure age wise employee engagement level of selected companies.
- To measure designation wise employee engagement level of selected companies..
- To measure experience wise employee engagement level of selected companies.
- To measure department wise employee engagement level of selected companies.
- To compare score of Employee Engagement among various Designations, Year of Experience, Departments, etc.
- To Check whether Employee Engagement Activities affect Productivity of the Employee or not.

- To check the turnover ratio and job satisfaction level of the employees of selected companies.

Statistical Tools of Analysis

Two-Way Anova Test is used in present research study. For this test, the data are classified according to the two different factors.

Limitations of the Study

- As the study is based on the primary data i.e. questionnaire, open ended answers were mostly ignored by respondents.
- All the questionnaires are filled by employees so the answers differ from each employee.
- To formulate and calculate hypothesis took more time but it was necessary in order to get accurate result.
- Due to limited time period, the sample size of only 70 was taken.
- Present study is limited to selected bearing manufacturing companies only, so the findings of this research may not be applicable to every manufacturing company of our country.
- It was found during the filling up of questionnaire that some of employees were hesitating to give correct answer of the question.
- This study is limited to the people of higher designation and hence the finds may not be applicable to the lower level employees.

Categories of Employee Engagement

In bearing manufacturing companies of our country, employees can be classified into following categories:-

Engaged - "Engaged" employees are builders. They want to know the desired expectations for their role so they can meet and exceed them. They're naturally curious about their company

and their place in it. They perform at consistently high levels.

Not Engaged - Not-engaged employees tend to concentrate on tasks rather than the goals and outcomes they are expected to accomplish. They want to be told what to do just so they can do it and say they have finished. They focus on accomplishing tasks rather than achieving an outcome.

Actively Disengaged - The actively disengaged employees are not just unhappy at work; they are busy acting out their unhappiness. They sow seeds of negativity at every opportunity. Every day, actively disengaged workers undermine what their engaged coworkers accomplish.

In my research, there is high ration of engaged employees because they are satisfied with their job and are interested in the development of organization. The employees working at the lower level are not much educated, this is the class of workers and hence they come in the category of not engaged employees and they are interested only in completing their task as soon as possible.

Ten C's of Employee Engagement in Present Research

The 10 C's of Employee Engagement which are followed in present research are as follows:

Connect: Leaders must show that they value employees. In my research, all employees are given due importance and proper care is taken about every employee from lower level to the top level. However, if employees' relationship with their managers is fractured, then there are chances of chaos in the organization but in my research, it is not the case because every employee has the cordial relation with every other employee in his organization. Employee engagement is a direct reflection of how employees feel about their relationship with the boss. My research considers that "Our employees are our most valuable asset." And hence there is good relation between management and employees.

Career: Leaders should provide challenging and meaningful work with opportunities for career advancement. Most people want to do new things in their job. For example, do organizations provide job rotation for their top talent? Are people assigned stretch goals? Do leaders hold people accountable for progress? Are jobs enriched in duties and responsibilities? Good leaders challenge employees; but at the same time, they must instill the confidence that the challenges can be met. In my research, management knows the ability of their employees and therefore the task given to them is as per their ability. As employees give their best output, there are sure chances of their career development in their organization. In my research every selected company provides all knowledge, training and other means like tools, etc which are important for the development of employees.

Clarity: Leaders must communicate a clear vision. In my research, people i.e. employees understand the vision that senior leadership has for the organization, and the goals that leaders or departmental heads have for the division, unit, or team and it is followed by the employees. Success of a company is determined by how clear individuals are about their goals and what they really want to achieve it. But at the same time employees need to understand what the organization's goals are, why they are important, and how the goals can best be attained. Clarity about what the organization stands for, what it wants to achieve, and how people can contribute to the organization's success should be always clear in the mind of an employee.

Convey: In my research, management clarify their expectations about employees and provide feedback on their functioning in the organization. Good leaders establish processes and procedures that help people to master important tasks and facilitate goal achievement. In my research information of every decision taken by the management is conveyed and communicated to the employees as soon as possible. Hence, no chaos is created due to lack of communication.

Congratulate: Every employee must be given regular feedback regarding his work. In my research, employees feel that they receive

immediate feedback when their performance is good, poor or average. Many employees also receive praise and recognition for strong performance. Exceptional leaders give recognition, and they do so a lot; they coach and convey.

Contribute: People want to know that their input matters and that they are contributing to the organization's success in a meaningful way. In my research, people put their 100% efforts to get the desired results.

Control: Employees value control over the flow and pace of their jobs and leaders can create opportunities for employees to exercise this control. In my research leaders consult with their employees with regard to their needs, they are flexible and to the needs of the employees as well as the organization. Leaders involve employees in decision-making, particularly when employees will be directly affected by the decision and hence there is no chaos in every company selected in my study.

Collaborate: In my research, when employees work in teams and have the trust and cooperation of their team members, they outperform individuals and teams which lack good relationships. Good leaders in selected companies of my study are team builders; they create an environment that fosters trust and collaboration. Thus, a continuous challenge for leaders is to rally individuals to collaborate on organizational, departmental, and group goals, while excluding individuals pursuing their self-interest.

Credibility: In present research, leaders strive to maintain a company's reputation and demonstrate high ethical standards. People want to be proud of their jobs, their performance and their organization and hence bring credit to themselves and organization.

Confidence: Good leaders help create confidence in a company by being exemplars of high ethical and performance standards. Every employee in my research selected companies are given good help by the leaders which help to create good confidence among the employees.

Data Analysis & Interpretations

Analysis of Scores given by Employees about factors affecting Employee Engagement with various Designations and Years of Experience. (Refer Table One)

Among employees with experience of below 20 years, Sr. Managers has given the score of 41, Managers has given the score 44, Sr. Officers has given the score 64, Officers has given the 51 and others i.e. accountant, stenographer, etc has given the score 218.

Employees with experience of 21 to 25 years, Sr. Managers has given the score of 39, Managers has given the score 102, Sr. Officers has given the score 206, Officers has given the 185 and others i.e. accountant, stenographer, etc has given the score 47.

Employees with experience of 26 to 30 years, Sr. Managers has given the score of 44, Managers has given the score 298, Sr. Officers has given the score 242, Officers has given the 145 and others i.e. accountant, stenographer, etc has given the score 41.

Employees with experience of above 30 years, Sr. Managers has given the score of 97, Managers has given the score 74, Sr. Officers has given the score 77, Officers has given the 140 and others i.e. accountant, stenographer, etc has given the score 47.

Ho: Score of factors affecting Employee Engagement does not differ within various Designations and Years of Experience.

H1: Score of factors affecting Employee Engagement differs within various Designations and Years of Experience.

It reveals from the above **table two** that row wise F calculated value is greater than F critical value so the hypothesis is rejected and there is significant difference among Years of Experience. It also reveals that column wise F calculated value is lower than F critical value so the null hypothesis is accepted and there is no significance difference among various designations.

2. Analysis of Scores given by Employees about factors affecting Employee Engagement with various Designations and Salary Structure. (Refer Table Three)

Below the salary of Rs.1,00,000 per month, Sr. Managers has given the score 44, Managers has given the score 47, Sr. Officers has given the score 57, Officers has given the score 50 and others i.e. accountant, stenographer, etc, has given the score 133.

In salary structure between Rs. 1,00,000 to Rs.7,50,00,000 per month, Sr. Managers has given the score 82, Managers has given the score 91, Sr. Officers has given the score 177, Officers has given the score 289 and others i.e. accountant, stenographer, etc, has given the score 126.

In salary structure between Rs. 7,50,000 to Rs. 15,00,000, Sr. Managers has given the score 83, Managers has given the score 279, Sr. Officers has given the score 371, Officers has given the score 76 and others i.e. accountant, stenographer, etc, has given the score 47.

In salary structure Rs. 15,00,000 per month, Sr. Managers has given the score 56, Managers has given the score 51, Sr. Officers has given the score 39, Officers has given the score 47 and others i.e. accountant, stenographer, etc, has given the score 55.

Ho: There would be no significant difference in the score of factors affecting Employee Engagement within various Designations and Salary Structures.

H1: There would be significant difference in the score of factors affecting Employee Engagement within various Designations and Salary Structures.

It reveals from the above **Table Four** that row wise F calculated value is greater than F critical value so the hypothesis is rejected and there is significant difference among Salary Structure. It also reveals that column wise F calculated value is lower than F critical value so the null hypothesis is accepted and there is no significance difference among various designations.

3. Analysis of Scores given by Employees about factors affecting Employee Engagement with various Designations and Department. **(Refer Table Five)**

In Training Centre, Sr. Managers has given the score 83, Managers has given the score 46, Sr. Officers has given the score 52, Officers has given the score 168 and others i.e. accountant, stenographer, etc has given the score 75.

In Stores Department, Sr. Managers has given the score 41, Managers has given the score 51, Sr. Officers has given the score 485, Officers has given the score 155 and Others i.e. accountant, stenographer, etc has given the score 57.

In Maintenance Department, Sr. Managers has given the score 47, Managers has given the score 144, Sr. Officers has given the score 57, Officers has given the score 144 and others i.e. accountant, stenographer, etc has given the score 49.

In Other Departments i.e. Security, NEST, etc Sr. Managers has given the score 138, Managers has given the score 173, Sr. Officers has given the score 101, Officers has given the score 50 and others i.e. accountant, stenographer, etc has given the score 125.

H₀: There is no significant difference in the score of factors affecting Employee Engagement within various Designations and Departments.

H₁: There is significant difference in the score of factors affecting Employee Engagement within various Designations and Departments. **(Refer Table Six)**

It reveals from the table that row wise F calculated value is greater than F critical value so the hypothesis is rejected and there is significant difference among Department. It also reveals that column wise F calculated value is lower than F critical value so the null hypothesis is accepted and there is no significance difference among various designations.

4. Analysis of Scores given by Employees about factors affecting Organization Development with

various Designations and Years of Experience. **(Refer Table Seven)**

Among employees with experience of below 20 years, Sr. Managers has given the score of 17, Managers has given the score 19, Sr. Officers has given the score 27, Officers has given the 18 and others i.e. accountant, stenographer, etc has given the score 98.

Employees with experience of 21 to 25 years, Sr. Managers has given the score of 52, Managers has given the score 34, Sr. Officers has given the score 91, Officers has given the 54 and others i.e. accountant, stenographer, etc has given the score 16.

Employees with experience of 26 to 30 years, Sr. Managers has given the score of 23, Managers has given the score 125, Sr. Officers has given the score 100, Officers has given the 52 and others i.e. accountant, stenographer, etc has given the score 19.

Employees with experience of above 30 years, Sr. Managers has given the score of 45, Managers has given the score 35, Sr. Officers has given the score 35, Officers has given the 60 and others i.e. accountant, stenographer, etc has given the score 15.

H₀: There would be no significant difference in the score of factors affecting Organization Development within various Designations and Years of Experience.

H₁: There would be significant difference in the score of factors affecting Organization Development within various Designations and Years of Experience. **(Refer Table Eight)**

It reveals from the table that row wise F calculated value is greater than F critical value so the hypothesis is rejected and there is significant difference among Years of Experience. It also reveals that column wise F calculated value is lower than F critical value so the null hypothesis is accepted and there is no significance difference among various designations.

5. Analysis of Scores given by Employees about factors affecting Organization Development with

various Designations and Salary Structure. (**Refer Table Nine**)

Below the salary of Rs.1,00,000, Sr. Managers has given the score 15, Managers has given the score 19, Sr. Officers has given the score 20, Officers has given the score 20 and others i.e. accountant, stenographer, etc, has given the score 35.

In salary structure between Rs.1,00,000 to Rs.7,50,000, Sr. Managers has given the score 49, Managers has given the score 57, Sr. Officers has given the score 60, Officers has given the score 95 and others i.e. accountant, stenographer, etc, has given the score 82.

In salary structure between Rs.7,50,000 to Rs.15,00,000, Sr. Managers has given the score 58, Managers has given the score 101, Sr. Officers has given the score 155, Officers has given the score 33 and others i.e. accountant, stenographer, etc, has given the score 15.

In salary structure above Rs.15,00,000, Sr. Managers has given the score 15, Managers has given the score 17, Sr. Officers has given the score 18, Officers has given the score 16 and others i.e. accountant, stenographer, etc, has given the score 18.

Ho: The score of factors affecting Organization Development does not differ within various Designations and Salary Structure.

H1: The score of factors affecting Organization Development differs within various Designations and Salary Structure. (**Refer Table Ten**)

It reveals from the table that row wise F calculated value is greater than F critical value so the hypothesis is rejected and there is significant difference among Salary Structure. It also reveals that column wise F calculated value is lower than F critical value so the null hypothesis is accepted and there is no significance difference among various designations.

6. Analysis of Scores given by Employees about factors affecting Organization Development with various Designations and Departments. (**Refer Table Eleven**)

In Training Centre, Sr. Managers has given the score 58, Managers has given the score 15, Sr. Officers has given the score 20, Officers has given the score 65 and Others i.e. accountant, stenographer, etc has given the score 40.

In Stores Department, Sr. Managers has given the score 15, Managers has given the score 17, Sr. Officers has given the score 180, Officers has given the score 45 and others i.e. accountant, stenographer, etc has given the score 23.

In Maintenance Department, Sr. Managers has given the score 34, Managers has given the score 70, Sr. Officers has given the score 20, Officers has given the score 16 and others i.e. accountant, stenographer, etc has given the score 15.

In Other Departments i.e. Security, NEST, etc Sr. Managers has given the score 30, Managers has given the score 92, Sr. Officers has given the score 54, Officers has given the score 20 and others i.e. accountant, stenographer, etc has given the score 54.

Ho: There is no significant difference in the score of factors affecting Organization Development within various Designations and Departments.

H1: There is significant difference in the score of factors affecting Organization Development within various Designations and Departments. (**Refer Table Twelve**)

It reveals from the table that row wise F calculated value is greater than F critical value so the hypothesis is rejected and there is significant difference among various Departments. It also reveals that column wise F calculated value is lower than F critical value so the null hypothesis is accepted and there is no significance difference among various designations.

References

- From the study it was found that majority of the employees are above the age of 45 years and they have experience of more than 20 years in their companies.
- Salary of every employee is as per their qualification and experience, they are paid

according to their caliber and therefore there is no injustice to employees.

- There is 100% job satisfaction of employees in selected companies because the turnover ratio of employees is very low or can say that it is nil.
 - There is cordial relationship between employees and management in present research.
 - Employees always have the chance of their career development in their companies because of good and cooperative management team.
 - The ratio of engaged employees increases in the selected companies because of favorable management policy, good working environment and cordial relationship among every one.
-

- In my research, employees are always allowed to share their views regarding any information.
- Employees in present research study believe that 100% dedication of work along with professionalism is important to achieve the company's goal.
- With the increase in experience of work, the designation of employees also goes higher.
- As the employees are actively engaged in their companies, there is quick achievement of personal as well as company's goal.
- In my research period, there has been no strike or lockout in any selected company which proves that management takes very good care of their employees.

TABLE ONE: DESIGNATION AND EXPERIENCE WISE SCORE OF EMPLOYER

Experience	Sr. Manager	Manager	Sr. Officer	Officer	Other
Below 20	41	44	64	51	218
21-25	39	102	206	185	47
26-30	44	298	242	145	41
Above 30	97	74	77	140	47
Total	221	518	589	521	353
No. of Employee	7	11	15	10	7
Avg.	31.57	47.09	39.26	52.1	50.42

Source: From Structured Questionnaires

TABLE TWO: TWOWAY ANNEXURE

Source of Variation	SS	Df	MS	F	F crit
Rows	452370.2	4	113092.5	14.72044	3.006917382
Columns	72300.16	4	18075.04	2.352697	3.006917382
Error	122923	16	7682.69		
Total	647593.4	24			

At 5% level of significance

TABLE THREE: DESIGNATION AND SALARY STRUCTUREWISE SCORE OF EMPLOYER

Salary	Sr. Manager	Manager	Sr. Office	Officer	Other
Below 1,00,000	44	47	57	50	133
1,00,000-7,50,000	82	91	177	289	126
7,50,000-15,00,000	83	279	371	76	47
Above 15,00,000	56	51	39	47	55
Total	265	468	644	462	361
No. of Employee	7	11	15	10	7
Avg.	37.85	42.54	42.93	46.2	51.57

Source: From Structured Questionnaires

TABLE FOUR: TWOWAY ANNEXURE

Source of Variation	SS	Df	MS	F	F crit
Rows	491405.2	4	122851.3	14.6353	3.006917382
Columns	63800	4	15950	1.900127	3.006917382
Error	134306.8	16	8394.175		
Total	689512	24			

At 5% level of significance

TABLE FIVE: DESIGNATION AND DEPARTMENTWISE SCORE OF EMPLOYER

Department	Sr. Manager	Manager	Sr. Officer	Officer	Other
Training Centre	83	46	52	168	75
Stores	41	51	485	155	57
Maintenance	47	144	57	144	49
Other	138	173	101	50	125
Total	309	414	695	517	306
No. of Employee	7	11	15	10	7
Avg.	44.14	37.63	46.33	51.7	43.71

Source: From Structured Questionnaires

TABLE SIX: TWOWAY ANNEXURE

Source of Variation	SS	df	MS	F	F crit
Rows	469152.6	4	117288.2	9.774942	3.006917382
Columns	85128.64	4	21282.16	1.773682	3.006917382
Error	191981.8	16	11998.86		
Total	746263	24			

At 5% level of significance.

TABLE SEVEN: DESIGNATION & EXPERIENCEWISE SCORE OF EMPLOYER

Experience	Sr. Manager	Manager	Sr. Officer	Officer	Other
Below 20	17	19	27	18	98
21-25	52	34	91	54	16
26-30	23	125	100	52	19
Above 30	45	35	35	60	15
Total	137	213	253	184	148
No. of Employee	7	11	15	10	7
Avg.	19.57	19.36	16.86	18.4	21.14

Source: From Structured Questionnaires

TABLE EIGHT: TWOWAY ANNEXURE

Source of Variation	SS	df	MS	F	F crit
Rows	81151.2	4	20287.8	16.41972	3.006917382
Columns	7249.6	4	1812.4	1.466847	3.006917382
Error	19769.2	16	1235.575		
Total	108170	24			

At 5% level of significance.

TABLE NINE: DESIGNATION AND SALARY STRUCTUREWISE SCORE OF EMPLOYER

Salary	Sr. Manager	Manager	Sr. Office	Officer	Other
Below 1,00,000	15	19	20	20	35
1,00,000-7,50,000	49	57	60	95	82
7,50,000-15,00,000	58	101	155	33	15
Above 15,00,000	15	17	18	16	18
Total	137	194	253	164	150
No. of Employee	7	11	15	10	7
Avg.	19.57	17.63	16.86	16.4	21.42

Source: From Structured Questionnaires

TABLE TEN: TOWAY ANNEXURE

Source of Variation	SS	df	MS	F	F crit
Rows	85782.16	4	21445.54	21.29668	3.006917382
Columns	6823.36	4	1705.84	1.693999	3.006917382
Error	16111.84	16	1006.99		
Total	108717.4	24			

At 5% level of significance

TABLE ELEVEN: DESIGNATION & DEPARTMENTALWISE SCORE OF EMPLOYER

Department	Sr. Manager	Manager	Sr. Officer	Officer	Other
Training Centre	58	15	20	65	40
Stores	15	17	180	45	23
Maintenance	34	70	20	16	15
Other	30	92	54	20	54
Total	137	194	274	146	132
No. of Employee	7	11	15	10	7
Avg.	19.57	17.63	18.26	14.6	18.85

Source: From Structured Questionnaires

TABLE TWELVE: TOWAY ANNEXURE

Source of Variation	SS	Df	MS	F	F crit
Rows	72013.36	4	18003.34	9.651377	3.006917382
Columns	11426.56	4	2856.64	1.531411	3.006917382
Error	29845.84	16	1865.365		
Total	113285.8	24			

At 5% level of significance

A STUDY OF CONSUMER PREFERENCE AND SWITCHING BEHAVIOUR FOR DEODORANTS

DR. MILI SEHGAL
MR. NITIN PATHAK

Vistas

The Indian deodorant Industry is one of the fastest growing sectors in India. This sector is growing at a rate of 35-40 percent per year and is expected to reach Rs 850 crores by 2012.

Consumers are the key to success of this industry as they have an inherent desire for beautifying and taking personal care of oneself through Deodorants. Thereby, future of these products also seems to be very promising. The success of deodorants in the urban market has encouraged many leading players in this sector to launch more deodorants -related products. The year 2011 itself, witnessed the launch of several deodorants like Octane by Elder Health Care Limited and English Lavender and English Rose by Yardley.

Initially deodorants were targeted at the urban elite. With the players understanding the lucrative and highly under penetrated category of deodorants, they have started coming out with Innovative Strategies to exploit the potential market .Today, this sector has also started targeting the middle class customers with affordable variants of deodorants.

The aim of this study is to find the factors that affect the behavior and attitudes of the deodorant -buying people so that the players can optimally utilize the potential of this industry.

The Indian deodorant Industry is one of the fastest growing sectors in India. This sector is growing at a rate of 35-40 percent per year and is expected to reach Rs 850 crores by 2012.

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The aim of this study is to find the factors that affect the behavior and attitudes of the deodorant - buying people so that the players can optimally utilize the potential of this industry.

Need of the Study

The review of the different studies by the experts on factors affecting consumer buying behavior in deodorants should be given more consideration. With the entry of MNCs, the preferences in deodorants of Indian customers have changed and the market is also facing great challenge to grab the customers. As the buying behavior pattern of the customer is different in case of deodorants than other cosmetic products it is imperative for the seller to understand, visit and survey the prospective market. Accordingly, surveying the customers would be helpful for the sellers to study the changing factors that affect customer's buying behavior as the current generation is a large user of the deodorants and also they have a unique consumption pattern.

The study will be helpful to formulate useful strategies to grab market by having an in-depth

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knowledge of the factors affecting consumer preferences, because after the actual factors differ from the assumed factor, as the factor affecting consumer preferences are contrast and complex. Therefore, the actual ground work or research work is the only way to know the consumer psychology towards purchasing decisions of deodorants.

Objective of the Study

Based on the above background, the main objective of this study is to examine the factors affecting consumer buying behavior in case of deodorants with special reference to youth. The specific objective is:

- To examine the factors affecting consumer buying behavior of deodorants through factor analysis.
- To understand the motive of purchasing behavior of deodorant
- To analyze the consumer personality while choosing deodorant

Methodological Specification of the Study

The study is based on the primary data collected from the accustomed and aspiring user of deodorants in Bareilly region by the help of structured questionnaire. The universe of the study consists of 120 customers who are regular users of deodorants.

The sample includes different individuals from both the gender, different age categories, education, occupation, income group and locality. The respondents being the adopter of deodorants in high volume, selected as the sample of study.

A structured questionnaire was developed to measure the customer decision making styles in the buying behavior of deodorants. The questionnaire consisted of questions concerning customer decision making styles and demographic information of the respondents. For this study items were adapted from Consumer Style Inventory (CSI) developed by Sporels and Kendall (1986). CSI Items were adopted from various available articles i.e. Mitchell, Vincet-Wayne (2001). Welsey et al (2006) and Canabal, M.E. (2002). Welsey.

All of these were five point Likert Type Scale in which respondents were asked to indicate their level of agreement (1 = strongly disagree to 5 = strongly agree). Questionnaire also consisted of questions to solicit demographic information of the respondents such as age, education, household, Income and marital status. Questionnaire was hand carried and personally explained to respondents by the interviewers. In the present study, we employ the factor analysis through SPSS to measure the customers buying behavior for deodorants in India. The characteristics of the 120 respondents were determined in terms of Sex, Age, Education, Marital Status, Occupation and Income. (Refer Table One)

Data Analysis and Interpretation of Results

Factor analysis:

The explanatory factor analysis is used in order to identify the factor affecting the choice of deodorants purchase from 120 respondents in Bareilly region. To test the suitability of the data for factor analysis, the following steps have been taken:

- The correlations matrices are computed and examined. It reveals that there are enough correlations to go ahead with factor analysis.
- Anti-image correlations were computed. These showed that partial correlations were low, indicating that true factors existed in the data.
- Kaiser-meyer-olkin measure of sampling adequacy (MSA) for individual variables are studied from the diagonal of partial correlation matrix. It is found to be sufficiently high for all variables. The measure can be interpreted with the following guidelines: 0.90 or above, marvelous; 0.80 or above, meritorious; 0.70 or above, middling; 0.60 or above, mediocre; 0.50 or above miserable, & below 0.50, unacceptable.
- To test the sampling adequacy, Kaiser-meyer-olkin measure of sampling adequacy is computed, which is found

to be 0.757. It is indicated that the sample is good enough for sampling

- The overall significance of correlation matrix is tested with Bartlett test of sphericity for choice of Consumer deodorants (approx. chi square = 560.304 significant at 0.000) as well as support for the validity of the factor analysis of the data set. **(Refer Table Two)**

Hence all these standards indicate that the data is suitable for factor analysis. For extracting factors we have employed principal components analysis and latent root criterion. Rotation methods, orthogonal rotation with varimax were also applied. As per the latent root criterion, only the factors having latent roots or Eigen values greater than 1 are considered significant; and all the factors with latent roots less than 1 are considered insignificant & disregarded.

Factor Analysis of Consumer Deodorant Purchase

There are only six factors each having Eigen values exceeding are for deodorant purchase. The index for the present solution accounts for 58.231% of the total variations for the choice of the deodorants. It is pretty good extraction because we are able to economize the number of choice factors. (i.e. from 20 statements to 6 underlying factor). The percentage of variation explained by factor one is 23.375% & that of 2, 3, 4, 5, 6 are 9.335%, 8.187%, 6.082%, 5.761% & 5.471% respectively. **(Refer Table Three, Four & Five)**

Large communalities in Table indicate that a large number of variance has been accounted by the factor solution. They are bigger than 0.5 for all the questions. This is the indicator of suitability of the questions.

Table Six has been formulated from SPSS data output. The variables are extracted from the graph with factor loading greater than 0.4. The respondents considered product features as the first dominating factor. In this factor the role of brand played a significant role in influencing choice of consumers. The consumers preferred the deodorants that were having features like fragrance, Brand value and seasonality. The

second significant factor was the promotion by the manufacturers. It indicated the consumers judged the credibility of deodorants on the basis of its awareness and show case. Sustainability is the third factor in terms of Fragrance, Longevity, and Quality in terms of aroma and intensity. People go for repeat purchase by experience of the fragrance. The fourth significant factor Price, Availability, Packaging Endorsement and offer are the other motivational factors. The cognitive arousal is the main source of buying behavior for deodorant. Packaging in most cases cause environmental arousal

The fifth significant factor is Brand awareness. Selective attention and exposure to the brand are important factors in choosing a deodorant. The name of different flavor of the brands also helps consumer to feel the image of that flavor. The sixth important factor is Word of Mouth. People get information from advertisement, friends & family, shopkeeper and of the varied sources.

Results and Discussions

This article analyses consumer preferences for attributes of deodorants. We had employed the factor analysis which was run using the Principle Component approach with a Varimax rotation to estimate the preferences. The results show that there are several dimensions associated with consumer preference towards using deodorants like wetness, dryness, and fragrance, which deliver generic core benefits for a brand.

Analyzing the brand loyalty it has been found that 69% respondents are brand loyal and the others are not. Analyzing the age factor it has been found that youth from age group 15-20 Years which adopt fragrance as part of their daily routine tend to continue the habit, where as 21-35 age group respondents are highly affected by word of mouth. The Prominent factors effecting purchase decisions are reliability, frequency of use and popularity.

Consumer preference level also depends upon product attributes like alcohol free nature of the product, longevity of the product, price, skin friendly, eco friendly, and antiseptic nature of the product. The results also show that Consumers are sensitive to the multi functional

utility of the product. They prefer products which helps to enhance the confidence or to promote feelings of relaxation, health and personal well being. From the above analysis we conclude that fragrance and freshness are the major factors influencing Consumer preferences.

Analyzing the market structure for deodorants it has been found that it is attributed by Internal and External Competition, reaction to internal and external front-end competition, poor planning, Over production and over stocking, Developing grey market ,Enhancing perception of commoditization of prestige fragrance, Unhelpful shopping experiences and Untrained sales consultants.

Further it was analyzed that mild fragrance and unique flavor is an important precursor for capturing the market and winning brand loyalty. The Players should go for promotional activities both for Brand awareness for retaining the Consumers. Personal counseling sessions at the retail outlets can also play a catalyst to attract the customers. Concluding there is a great opportunity to change the market paradigm, of the deodorants industry by adopting a marketing strategy that aims to sell an experience by using a PULLPRO strategy comprising of a “pull” strategy and evolving it into a “profile” strategy.

Wherein, the Interaction with deodorants-buying Consumer should also be increased. The Customers should be motivated to prefer brands by telling the stories of fragrances, ingredients and fragrance. Focus should be on enhancing the pleasure created by using deodorants thereby encouraging customers to enjoy the Deodorants experience.

The CFI in present study was applied to measure the Consumer preference for deodorants with certain reliability and validity, The same can be applied to measure consumer preference for other personal care products.

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TABLE ONE: CHARACTERISTICS OF THE RESPONDENTS (N = 120)

Characteristics	Number of respondents	Percentage
Sex- Male	70	58.3
Female	50	41.7
Age 15-20	56	46.7
21-35	48	40
36 & above	16	13.3
Education		
Intermediate	51	42.5
Undergraduate	23	19.2
Post graduate	46	38.3
Marital status		
Married	49	40.8
Single	71	59.2
Occupation		
Working	56	46.7
Not working	64	53.3
Income		
Below 2 lacs	57	47.5
2-3 lacs	28	31.7
Above 3 lacs	35	20.8

TABLE TWO: KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.757
Bartlett's Test of Sphericity	Approx. Chi-Square	560.304
	df	190
	Sig.	.000

TABLE THREE: TOTAL VARIANCE EXPLAINED

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.675	23.375	23.375	4.675	23.375	23.375	2.220	11.101	11.101
2	1.871	9.355	32.730	1.871	9.355	32.730	2.187	10.935	22.036
3	1.637	8.187	40.917	1.637	8.187	40.917	2.063	10.317	32.353
4	1.216	6.082	46.998	1.216	6.082	46.998	2.058	10.290	42.643
5	1.152	5.761	52.759	1.152	5.761	52.759	1.579	7.893	50.536
6	1.094	5.471	58.231	1.094	5.471	58.231	1.539	7.695	58.231
7	.936	4.681	62.911						
8	.857	4.287	67.198						
9	.819	4.095	71.293						
10	.800	3.998	75.290						
11	.729	3.644	78.934						
12	.688	3.441	82.375						
13	.634	3.172	85.547						
14	.541	2.705	88.252						
15	.493	2.463	90.714						
16	.428	2.141	92.855						
17	.420	2.099	94.955						
18	.375	1.877	96.832						
19	.346	1.732	98.564						
20	.287	1.436	100.000						

Extraction Method: Principal Component Analysis.

TABLE FOUR: TOTAL VARIANCE EXPLAINED

Communalities		
	Initial	Extraction
Q7.1*	1.000	.640
Q7.2	1.000	.591
Q7.3	1.000	.597
Q7.4	1.000	.668
Q7.5	1.000	.607
Q7.6	1.000	.546
Q7.7	1.000	.529
Q7.8	1.000	.669
Q7.9	1.000	.589
Q7.10	1.000	.590
Q7.11	1.000	.622
Q7.12	1.000	.485
Q7.13	1.000	.382
Q7.14	1.000	.608
Q7.15	1.000	.669
Q7.16	1.000	.631
Q7.17	1.000	.690
Q7.18	1.000	.400
Q7.19	1.000	.559
Q7.20	1.000	.573

Extraction Method: Principal Component Analysis.

TABLE FIVE: ROTATED COMPONENT MATRIX

Rotated Component Matrix ^a						
	Component					
	1	2	3	4	5	6
Q7.1	.094	-.002	-.086	.324	.707	.136
Q7.2	-.008	-.044	.755	.053	.084	-.099
Q7.3	-.012	.124	.748	.031	.083	.121
Q7.4	.043	.197	.277	-.064	.739	-.016
Q7.5	-.015	.444	.180	-.292	.469	.269
Q7.6	.119	.094	.469	.140	.079	.527
Q7.7	.332	-.016	.621	.146	-.010	.103
Q7.8	.079	.036	.046	.111	.129	.794
Q7.9	.166	.207	.184	.646	-.243	.089
Q7.10	-.120	.027	.127	.695	.165	.219
Q7.11	.756	.077	-.054	.071	.190	.023
Q7.12	.405	2.035E-7	-.065	.458	.083	.317
Q7.13	.360	.266	.076	.410	.084	.030
Q7.14	.268	.392	.031	.596	.127	-.100
Q7.15	.072	.759	-.034	.145	.245	-.070
Q7.16	.218	.666	.203	.312	.042	-.008
Q7.17	.126	.701	-.053	.084	-.058	.412
Q7.18	.317	.301	-.050	.183	-.223	.351
Q7.19	.652	.024	.302	.056	-.010	.196
Q7.20	.710	.216	.087	.079	-.084	.015

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 10 iterations.

TABLE SIX: FACTOR AND FACTOR GRADING

Factor name	Item	Factor Loadings
Factor 1 Product Attributes	Brand Name	.756
	Odour	.652
	Seasonal	.710
Factor 2 Promotion	Discount	.759
	Brand ambassador	.666
	Extra Features	.701
Factor 3 Sustainability	Fragrance	.755
	Longevity	.748
	Quality	.621
Factor 4 Price	Price	.646
	Availability	.695
	Packaging	.458
	Endorsement	.410
	Offer	.596
Factor 5 Awareness	Brand Awareness	.707
	Wetness	.739
Factor 6 Word of mouth	Reliability	.527
	Frequency of use	.794
	Popularity	.351

APPENDIX
QUESTIONNAIRE
A STUDY OF CONSUMER PREFERENCE AND SWITCHING BEHAVIOR FOR DEODORANTS:

Tell us about yourself:

Name :—

Address

Q1) Age Groups-

1)15-20 2)21-35 3)above36

Q2) Sex :

1)Male 2)female

Q3) Educational Qualification:

1) Intermediate 2) Undergraduate 3)Post graduate

Q4) Occupation

1) student 2) service 3) business 4)others

Q5) Marital Status

1)Married 2)Single

Q6) Income Level :

1) Below Rs 2 lakhs 2) Rs 2 lakhs to 3 lakhs 3) Above Rs 3 lakhs

Q7) On the 5 Point Scale rate the attributes you feel are Important for making the Buying Decision.

Attribute	5 (Very Important)	4 (Fairly Important)	3 (Important)	2 (Less Important)	1 (Least Important)
1-Brand Awareness					
2-Fragrance					
3-Longevity					
4-Wetness					
5-Dryness					
6-Reliability					
7-Quality					
8-Frequency of Use					
9-Price					
10-Availability					
11-Brand name					
12-Packaging					
13-Endorsement					
14-Offet					
15-Discounts					
16-Brand Ambassador					
17-Extra Features like Silky Effect/Cologne					
18-Popularity					
19-Odour					
20-Seasonal					

CONFLICT SEGMENTS OF WOMEN EMPLOYEES OF IT SECTOR IN INDIA - ITS REVELANCE WITH THE DEMOGRAPHIC PROFILE

AISWARYA.B
G.RAMASUNDARAM

The growth rate for women entering the workforce is expected to be greater than for men. Therefore it is possible that the financial well-being of the family may no longer fall to the male (Duxbury and Higgins, 1991); it may be shared between the two partners or may be the sole responsibility of a single parent. These trends potentially increase the chance that work could interfere with family(WIF) or that family could interfere with work (FIW).The study is conducted to test the Impact of Organizational Commitment , Job Autonomy, Job Involvement and Climate as moderating variables on Work- Family Conflict of Employed women in India. The sample size of 598 is identified and with the application of statistical tools the relationship among the said variables are estimated and its role on the Work family conflict is studied , quantitatively.

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There has been a growing interest in work and family conflict (Carlson, and Williams, 2000; Frone, Yardley, Markel, 1997b and Greenhaus and Beutall,1985; Kossek and Ozeki, 1998). These trends potentially increase the chance that work could interfere with family (WIF) or that family could interfere with work (FIW).Work and family has been shown to have a negative impact on organizational family and personal outcomes therefore efforts to reduce work and family conflict by addressing significant antecedents may be beneficial to organizations.

Work and family is defined "as a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect"(Greenhaus and Beutall, 1985, p.77).The more time individuals allocate to one arena ,the less they have to allocate to the other (Moen, 2002).When individuals feel that too many demands of one domain are unmet they experience work family conflict ,which is consistent with a conflict

With changes in societal demographics including a growing number of dual career and single parent families, there has been much discussion in the popular press about work family conflict. Even with a growing number of companies insisting in work life benefits very little. research has been done on the outcomes of such benefits in the work place.

The literature on work family conflict has continued to evolve over the past two decades ,focusing primarily on defining the construct and exploring its antecedents and consequences . Three recent meta nalysis in work family conflict (Allen, Herst, Bruck, andSutton, 2000; Kossek and Ozeki, 1998; 1999) indicated that few exceptions including Grover and Crooker (1995); Lambert (2000); O'Driscoll, Ilgen, and Hildreth (1992) and Wiley (1987).

An important issue facing our society is the changing work and family roles of Indian women. Because so many women occupy both work and family roles their experiences as paid workers wives, and mothers represent primary social contexts for examining women's lives (McBride, 1990). With so many women engaged in multiple roles the effect that these social roles have on women's well being is worth examining (Repetti, 1998a; Russo,1990)

Members of dual earner families and families with young children are more likely to experience work

family conflict (Kelly and Voydanoff, 1985; Voydanoff, 1988) important shifts in family structure and accompanying demands needed to be considered (Voydanoff, 1988). The vast majority of this research has focused on “family” in the domain of non work examining the specific types of work /non work conflict; work /family conflict work family occurs when work pressures and family pressures occur at the same time such that compliance with pressures in one domain (e.g., work) makes it more difficult to comply with pressures in another domain (e.g. family).

Most work family conflict research to date developed and tested antecedents and outcomes of work /family conflict (Frone et al., 1992; Frone et al., 1997; Grandey and Cropanzano, 1999; Greenhaus and Beutall, 1985; Kopelman et al., 1983). Kopelman et al (1983) were among the first to systematically examine the construct of work family conflict. They began by defining three role conflict variables, work conflict, family conflict and interrole conflict. Work conflict is the extent to which one experiences incompatible role pressures with regard to family. Interrole conflict occurs when one experiences pressures of one role that are discordant with pressures in another role. Greenhaus and Beutall (1985) articulated three potential sources of work family conflict time based conflict strain based conflict and behavior based conflict.

Profound social and demographic trends and elevating the need to understand and manage the interface between work and family. Researchers and practioners have attempted to understand the nature of these changes discover their implications for work, families and individuals and policies to address associated problems. In addition several models have also been developed that incorporate antecedents and consequences of conflict between work and non work activities (Kopelman, Greenhaus and Connolly, 1983; Bedeian, Burke, and Moffett, 1988).

Significance

Work and family are very important areas to most people. An increasing percentage is experiencing what researchers call spillover between the two domains (i.e. work and family) that result in work and family conflict. In order to hone in on the potential causes of WandFC this research would examine dimensions related to both work and family domains in identifying determinants of Wand FC. Thus this research could improve researchers

ability in detecting levels of work and family conflict and diagnosing key causes.

The dearth of research and the proliferation of work family conflict has led to several calls for research on work life benefits and their relationship with work family conflict (Allen et al., 2000; Kossek and Ozeki, 1998; 1999; Lambert, 2000). Following their first meta analysis on work family conflict, Kossek and Ozeki (1998) concluded that the “synthesis of role conflict and HR Policy research offers strong potential for advancing future research (p140). This research investigates the possible relationship of WFC on Moderators (social support, spousal support, Co workers, Superior).

Literature

Work Life Conflict

Work and family are two central domains in most adult's lives. In recent years research into the links between these two domains has grown tremendously because of changes in the demographic composition of the work force (Edwards and Rothband, 2000; Greenhaus and Parasuraman, 1999; Lambert, 1990; Staines, 1980).

The popularity of this conflict perspective stress from the scarcity hypothesis, which assumes that individuals have limited time and energy. Therefore occupying multiple roles creates inter-role conflict and role overload which in turn proponents the hypothesis assure cause psychological distress and physical exhaustion (Coser, 1974; Marks, 1977).

Researchers in this area have distinguished between two types of work family conflict; work interfering with family (WIF) conflict and family interfering with work (FIW) conflict. WIF conflict occurs when work related activities interfere with home responsibilities (By a persons bringing work home and trying to complete it at the expense of family time and FIW conflict arises when family role responsibilities impede work activities) (e.g. by a persons having to skip an important meeting because the child is suddenly ill). Although strongly correlated with one another they are conceptually and empirically distinct constructs. (Duxbury, Higgins, and Lee 1994; Frone, Russell, and Cooper, 1992).

While the best predictors of WIF conflict are work domain variable the best predictors of FIW conflict are mainly family domain variables (Kinnunen and Mauno, 1998). Greenhaus and Beutall (1985)

identified three major types of work family conflict. The first is time based; Time spent on role performance in one domain often precludes time spent in the other domain. Time expended on role performance may deplete energy or generate strain.

The second work family conflict strain based conflict arises when strain in one role affects ones performance in another role. The last type is behavior based conflict which refers to incompatibility between the behaviors patterns that are desirable\e in the two domains. Reported are important relationships between work family conflict and various constructs. First many studies have found relationships between work family conflict and health (mental and physical). Grandey and Cropanzano (1999) and others have discovered relationships between work family conflict and overall physical health.

Many researchers (Netemeyer et al .,1996) Thomas and Ganster, 1995) have concluded that increased work family conflict is related to increased depression and other psychological issues. Good, Page, and Young (1996) found an indirect relationship between work family conflict and organizational commitment. Carlson et al (2000) also discovered that work involvement does significantly correlate with work to family conflict. In addition Aryyee, Luk, Leung and LO (1999) found that work overload is strongly related to both work to family and family to work conflict.

Pleck (1997) suggested that boundaries between work and family were asymmetrically permeable when the demand from one domain intruded into the other domain with unequal frequency (Pleck, 1977).

Research methodology

Research methodology is the frame work of any research work that explains as to the research design, the data used, sampling technique applied, tools used for analysis and so on.

Research design

The design applied in this study is conclusive type of descriptive research design. It is appropriate to use this method as this research describes the relationship between different variables and concludes as such. It tries to understand the behavioral differences of respondents.. Besides, the view of researcher is not having any role in the conclusion of the study.

Data

Both primary and secondary data are used in this study to attain the objectives. The primary data of this study are first hand information collected from respondents regarding demographic background, like education, marital status, Number of children, and dependents, income level and designation. The secondary data are information about previous studies in Role conflict of women across the world, among various sectors like nursing, academics, and other industries particularly in India, Tamil Nadu and Chennai. Indicators have been gathered from journals and magazines.

Structured questionnaire is used for gathering information from respondents that has been drawn on objectives of study and finally drafted based on pilot study. For testing the reliability, pilot study has been conducted by distributing questionnaires among 50 respondents. On the basis of their views and reliability of scales, questions have been modified and questionnaire has been so redrafted as to meet minimum value of reliability which has been tested further through survey among another 50 respondents.

Questionnaire

Set of questions pertaining to the objectives of the study is prepared with the help of previous studies conducted with reference to variables. Questionnaire consists of both qualitative and quantitative items. Moreover, apart from multiple choice questions, different types of scales are used to measure the respective variables.

Sampling

Since the population size is very large, sampling technique is applied to select sample unit. In this study, random sampling technique is adopted for selecting the various IT firms... For selecting respondents, judgment sampling technique is applied through mal intercept method. Sample unit of this study is only women both married and unmarried employed in IT industry in Chennai city.

Totally 1000 questionnaires have been distributed to respondents but only 755 have been received after continuous follow-up. Among collected filled questionnaires, only 598 are in usable condition.

Validity and Reliability:

Reliability of scales is tested with cron bach alpha. The following are the alpha values for respective scales that have satisfied the minimum requirement of 0.7

Work Family Conflict: 0.923

Cluster analysis is to partition a set of objects into two or more groups based on the similarity of the objects for a set of specified characteristics, a technique for quantifying the structural characters for asset of observations. This logical description of the raw data was used to measure cluster centroid which is the mean profile of the cluster on each clustering variables.

In order to segment the respondents based on the work life conflict k means cluster analysis is applied. Clustering process generated three cluster solutions based on the cluster seed points, by hierarchical cluster analysis. The cluster solutions were more similar in cluster in size and demonstrated more significant differences between clusters on the set of clustering variables.

For ascertaining the number of clusters hierarchical cluster analysis is used. Dentogram hierarchical cluster exhibits three clear segments and this is also confirmed by the step cluster analysis.

The above table shows the mean value of each factor in different clusters.

Work family conflict time has scored the highest mean value in cluster one and the lowest mean value in cluster three, similarly work family conflict strain and work family conflict behavior has scored the highest mean value in one and the lowest in the cluster three.

Therefore the cluster one is comprising of very high values of work life conflict time, strain and behavior and moderately contributed in cluster two and the least in cluster three. The mean of four and above shows the cluster one is highly influenced by time, strain and behavior.

The mean value of three denote neutral is neither they are highly influenced nor having totally not influenced. The mean value of three less than three in cluster three depicts that work family conflict time, strain and behavior does not influence the cluster respondents.

The f values in the ANOVA shows that work family conflict time, strain and behavior are significantly

different and is statistically right. The clusters based on their origin can be labeled as high conflict segment, moderate conflict segment and no conflict segment.

The above table shows that nearly half of the respondents are in the mid point between high conflict and no conflict. It means that the respondents belonging to this segment have moderate work life conflict.

Nearly 28.94% of the respondents contribute to the nil conflict segment which is the next to the moderate conflict segment but is higher than the high conflict segment which contribute to 19.06%.

From the correspondent table it is evident that those respondents who are having two dependents in the family form the majority in the high conflict segment followed by three dependents same is the case with the moderate conflict segment more of respondents fall in the moderate conflict segment even when the number of dependents increases. The least number of three as well as four and above dependent group fall in the no conflict and high conflict segment respectively.

The correspondent chart depicts the high conflict segment is associated only with the two dependent group the moderate conflict segment with four and above and the respondents with no dependents have no association with any of the conflict segments.

The majority of the graduates followed by post graduates constitute the moderate conflict segment. The next highest is the no conflict segment in the similar manner but there is only a minor difference between the graduates groups and the post graduate group. Whereas in the high conflict segment the graduate group is twice the number of post graduates. The chart shows that the graduates are only highly associated with high conflict. Post graduates and graduates are associated with moderate conflict as revealed through the distances in the map.

The post graduates to a certain extent is closer to no conflict. The school educated and others are no way associated with any of the conflict segments.

The Correspondent table shows that the majority of the high conflict segment is comprising of respondents who work ten hours per day immediately followed by respondents who work nine hours per day very few respondents who work eight hours per day are found to have high conflict.

The majority of the respondents who work for nine hours per day are found to be in the moderate conflict segment followed by respondents who work for ten hours per day.

The least number of respondents who work for ten hours and above fall in the no conflict segment. There is a probability that as the number of hours increases the conflict level also increases.

The correspondent chart shows the association of the number of working hours with the level of conflict segment. High conflict is associated with ten hours per day nine hours, working hours with moderate conflict and less than eight hours with no conflict segment. The above ten hours per day is not associated with any of the conflict segment.

Conclusion

Thus the above Quantitative analysis and its Interpretation derives conclusive discussion on the nature and the intensity of the relationship between the demographic variables and its impact on the Work Life Conflict of Women Employees in IT Sector.

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FIGURE ONE

Symmetrical Normalization

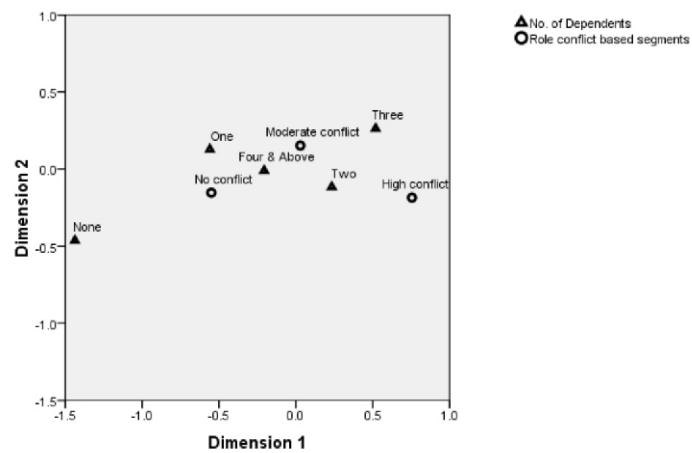


FIGURE TWO

Symmetrical Normalization

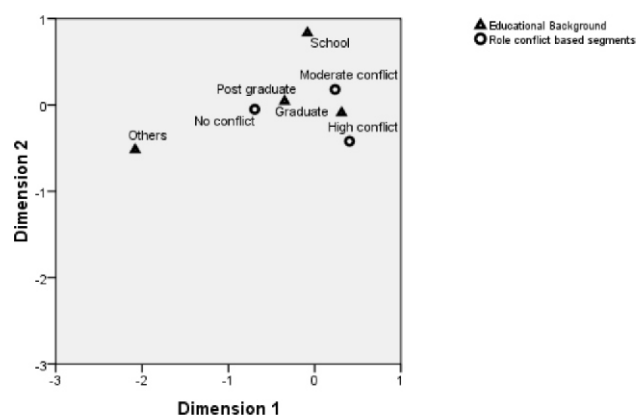


FIGURE THREE

Symmetrical Normalization

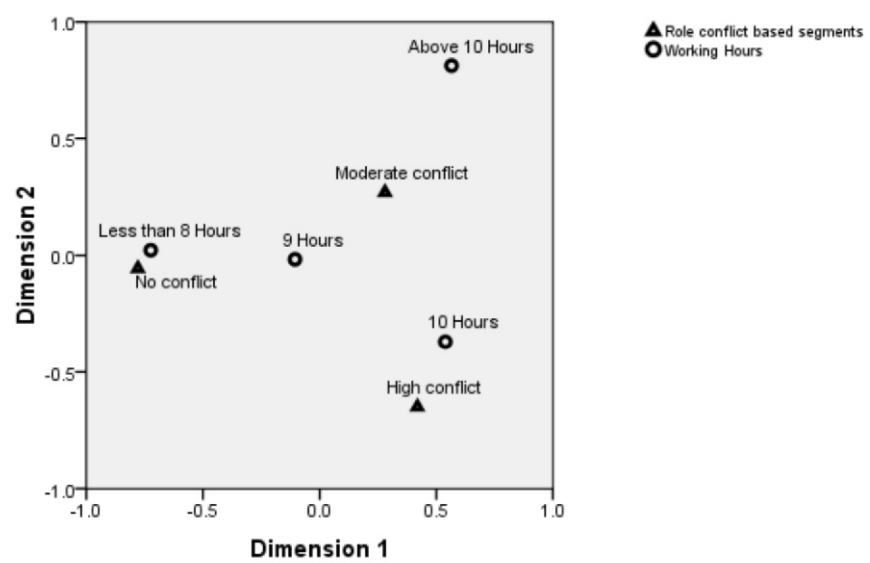


TABLE ONE

Cluster analysis

Type of role conflict	Cluster		
	1	2	3
Work Family Conflict Time	4.30	3.57	2.53
Work Family Conflict Strain	4.07	2.89	1.91
Work Family Conflict Behaviour	4.18	3.16	2.48

TABLE TWO

Role conflict based segments	Working Hours				
	Less than 8 Hours	9 Hours	10 Hours	Above 10 Hours	Active Margin
High conflict	19	40	45	10	114
Moderate conflict	61	109	88	53	311
No conflict	66	68	28	11	173
Active Margin	146	217	161	74	598

TABLE THREE

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
Work Family Conflict Time	115.896	2	.258	595	449.891	.000
Work Family Conflict Strain	161.533	2	.242	595	667.080	.000
Work Family Conflict Behaviour	98.596	2	.292	595	337.301	.000

TABLE FOUR

Number of Cases in each Cluster	
High conflict segment	114.000
Moderate conflict segment	311.000
No conflict segment	173.000

TABLE FIVE

Correspondence Analysis:

S.No	Variable Name	Deg of freedom	Chi square	Significance
1.	Age	6	11.834	0.066
2.	Personal Income	6	11.135	0.084
3.	Marital Status	2	33.702	0.000*
4.	Designation	4	7.624	0.106
5.	Number of dependents	8	23.516	0.003*
6.	Educational background	6	25.446	0.000*
7.	Working hours	6	45.746	0.000*
8.	Exp.in the org .	6	9.291	0.158

TABLE SIX

Segments	No. of Dependents					Active Margin
	None	One	Two	Three	Four and Above	
High conflict	0	17	71	21	5	114
Moderate conflict	6	84	160	45	16	311
No conflict	7	60	80	16	10	173
Active Margin	13	161	311	82	31	598

TABLE SEVEN

Role conflict based segments	Educational Background				Active Margin
	School	Graduate	Post graduate	Others	
High conflict	4	75	34	1	114
Moderate conflict	20	186	102	3	311
No conflict	10	77	76	10	173
Active Margin	34	338	212	14	598

With the heralding of the new millennium and the challenges that have appeared globally, the problem of Child Labour stands among the most acute ones. Millions of children in the world have been forced into child labour owing either to non-schooling or to school dropouts at the initial stage. Child labour may be defined as one who has not yet attained the age of 14 years and whose physical, mental and social development has suffered due to his pre-mature employment.

In the densely – populated poor and developing countries, the problem of child labour is acute. Child labour is often difficult to detect and is a complex issue to address in a responsible manner, although incidences are rarely reported in work place monitoring, corporate members felt that child labour might be present, but out of sight.

Child labour pervades the developing world. The prevalence of child labour upsets many people in rich countries. As a result governments in Europe and elsewhere have improved or threatened to improve trade sanctions that restrict the sale of goods from developing countries. The stated aim of these sanctions is to force developing countries to take steps towards the elimination of child labour.

This article is to examine the relation between child labour and globalization by considering developing countries.

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This article is to examine the relation between child labour and globalization by considering developing countries.

Child labour has many aspects that is waiting to be argued and considered. As Dayioglu (2006) says, employment of children is a common phenomenon in many developing countries.

According to Schelburne (2002) the child labour is kind of work that is exploitative and detrimental to the development of child.

Grootart and Kanbur (1995) defines child labour as; at one extreme, all non-educational, non-leisure time of individuals below a certain age, at the other extreme, only full time employment in economic activity.

Globalization is considered as the integration of national economies into the international economy through trade in goods and services,

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foreign direct investment, capital flows, transfer of technology and flow of workers.

What is Child Labour?

Politicians in developing countries like to define child labour as work that impairs the development and well being of children. Economists prefer a less subjective definition. Economics view child labour as the economic activities in which children participate. This definition includes slavery and prostitution, that it extends to the types of activities that children regularly participate in throughout the developing world.

While economists and politicians differ in their definition of child labour, economists differ among themselves in how they define the economic activities of children. The first wave of child labour studies only considered work in a formal household trainers and work in agriculture. More recently, economists have begun to recognize that ignoring house hold activities limits their ability to understand how children spend their time. For example, if a parent leaves the household to work for a local employer, a child may take over many of the parent's household roles. Ignoring time spent by children collecting wood and water, tending to animals, preparing food and meals, or caring for family. Members would imply that a child spending two hours a day in agriculture works more than the child labouring twelve hours a day filling in for an absent parent.

Why do Children Work

Social scientists vary in how they view a parent's decision to send a child to work. The debate revolves around how parents in developing countries view child labour. In one view, parents want their children to work. Perhaps parents even have children in order to send the children to work. This view implies that parents take advantage of any earnings opportunity open to children so long as parents benefits more when the child works than when the child goes to school, child labour persists. Improvements in living standards may do nothing to ameliorate child labour.

An opposing view believes that parents in developing countries do not differ from parents in developed countries in how they view child labour. Researches have observed that parents in poor countries generally say that they would rather their children attend school and work less. So why is child labour so pervasive ? For the simple reason that impoverished households need their children to work. Households that cannot meet their basic needs depend upon the income of their children for survival. Without the income from working children, parents in poor households may have to choose which children to feed.

Moreover, schooling is expensive in most of the developing world. Thus it is not uncommon to see some children working so that their siblings may attend school. If governments would somehow prevent children from working, we might see less schooling rather than more, because the loss of income from working children would make schooling even more unaffordable.

How can Globalization Affect Child Labour:

Globalization and child labour interact in two basic ways. First globalization may increase the employment and earnings opportunities available to poor households in developing countries. Changes in local labour markets from globalization may increase or decrease child labour.

Secondly, globalization increases the influence of developed countries in the domestic policies of the developing world.

Globalization can enhance employment and earnings in developing countries because of inflows of foreign investments or increases in the value of a developing countries export products when a country opens to International markets, foreign investment often (but not always) enters the country. This leads to increases in the demand for local and hence higher wages. In addition, many of today's developing countries have comparative advantage in agriculture an integration into International Markets may increase the price of the export product to

international levels. Thus trade liberalization may increase employment and wages in these agricultural export sectors.

These changes in developing country labour markets stemming from globalization could increase child labour. Increased earning opportunities may increase the demand for child labour and the wages paid to children. Indirectly increased earnings opportunities to parents may change the types of work performed by parents. Children may be forced to take over some of the activities usually performed by adults within their household.

Alternatively, globalization induced improvements in earnings opportunities can reduce child labour. If poverty drives child labour, children work either for the income from work or because they cannot afford school fees. When one child makes more as a result of globalization, other children may be able to stop working and attend school. Moreover, increased parental earnings may help parents reduce the work that children perform. Parents can buy substitutes for goods pervasively produced by children. Hence, globalization can help parents in poor countries, stop child labour without foreign intervention.

Of course critics of globalization question whether globalization increases the earnings opportunities of residents in poorer countries. Globalization increases a country's exposure to foreign competition. This may force inefficient firms in import-competing industries out of business. Regardless of the long term benefits of this reallocation of resources, in the short term, these adjustments may create difficulty for some households with children.

A second argument against the link between globalization and increased earnings opportunities claims that globalization encourages the entry of foreign multinationals and that they depress the earnings opportunities and wages of local workers. This can happen if foreign companies would non-competitive market power in local markets. Studies based on complete manufacturing information finds

that foreign firms actually pay higher wages than do local firms.

Not only does globalization affect earnings opportunities in developing countries, but globalization also increases the ability of rich countries to influence policy in the world's poorer nations. As developing countries integrate into the world economy and increasingly rely on export markets to sell their products, rich countries can use the threat of trade sanctions to source policies that attempt to curtail child labour. Thus globalization enables high income countries to punish poor nations for high levels of child labour.

Consumers in affluent countries are appalled at the thought that soccer balls for their kids or carpets in their homes might be the products of child labour.

Strong international human rights conventions are in place to outflow the practice. But deepest cultural traditions and impoverished economics do not respond readily to moral lectures from afar. Resultant to all but the most holistic development strategies, child labour shows no sign of history.

There were 218 million children working illegally in the eyes of international treaties, as at the most recent formal assessment in 2004. Child labour is defined as all economic activity for children under 12 years, any work for those aged 12-14 of sufficient hours per week to undermine, their health or education and all 'hazardous work'. Which could threaten the health of children under 18.

Almost all child labour occurs in developing countries, largely in agriculture but also including domestic service, factory production and backstreet workshops. Poverty is the seed-bed of child labour. Poor parents send their children to work for reasons of economic expediency, the consequent denial of education setting in motion a mutually reinforcing cycle liable to pass down the generations. It is nevertheless naïve to attribute the problem solving to poverty, schools are often prohibitively expensive, of poor quality or inaccessible cultural pressures can undermine

perception of the long term value of education, especially for girl children.

Economic set backs will therefore regenerate the supply side of the child labour equation. The most pervasive example lies in the evidence that the global fall in child labour is being reversed in African Countries most affected by HIV/AIDS in Africa are heads of households, compelled to provide for siblings.

This supply of child labour is recommended by the demand of employers for a cheap and favourable workforce, including small scale enterprises where owners exploit their own family members. There is value to be explored in the particular skills that children's dexterity can offer, for example in earnings or in tasks involving shop needs. Girl children are in demand for domestic service, the invisible nature of which adds to the vulnerability to abuse.

Children's Rights and Child Labour:

In 1989, the UN General Assembly adopted the convention on the Rights of the Child (CRC) within which Article 32 asserts the right that children should not be engaged in work deemed to be "hazardous or to interfere with the child's education, or to be harmful to the child's health". Global political initiatives to respect their rights, together with the production of internationally recognized statistics, are coordinated by the International Labour Organization (ILO), which has allied its mission with the cause. For example, the ILO aims to achieve by 2016 the objective of its 1999 convention 182 for the Elimination of the Worst Forms of Child Labour, encouraging countries to have time bound plans in place in 2010.

Countries ratifying these conventions are committed to providing laws which enforce the provisions. Similarly rights to children's education backed by laws serve to reinforce child labour legislation. Every full time student is one less full time child worker. Unfortunately, more than 10 countries have still not ratified the ILO convention, notably India where child labour remains stubbornly widespread. Indian Government estimates the existence of over 12 million child

labourers but civil society organizations put the figure at over 100 million. A major review published by the ILO in 2007 says of the 2016 global objective that "it is clear this ambitious target will not be achieved by business as usual", urging the worldwide movement to re-energize itself.

Conclusion:

Child labour is a complex problem which demands a range of solutions and sensitive treatment. Although almost every country has laws prohibiting the employment of children below a certain age, legislation too often fails to close the door on child labour.

Child labour will only be eliminated through long-term, national programmes that involve the support of the populace and address all the causal factors. The international community must support these movements by : better targeting of development aid to help states provide primary education. This should be aimed at marginalized children and other at risk groups.

Encouraging countries to work with ILO and UNICEF to adopt long term programme of action aimed at reducing and eventually eradicating the use of child labour.

The integration of child labour concerns into national development strategies, backed by effective legislation is therefore the preferred route to lasting solution. Reduction of chronic poverty through broad economic and social development will create change in cultural fundamental towards children.

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**ENTREPRENEURSHIP AMONG WOMEN IN KERALA-
CASE STUDY ON TECHNOLOGY AS A RESOURCE
MOBILISATION AND CONCEPTION THROUGH
KUDUMBASREE INITIATIVE**

Vistas

**DR. K. S. CHANDRASEKAR
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Kerala highly literate state and good health status women are heavily depended up on men in the family. The statistical data also show that the number of women SSI units is increasing every year. Even though women entrepreneurs in Kerala have essential education, they are not outstanding in their role as entrepreneurs, as the majority of them undertake less risky ventures. Till mid of 90's most of the SSI units started by women entrepreneurs are conventional in nature. The Kudumbashree poverty eradication initiative based in Kerala state is a unique scheme that has successfully created a state-wide series of cooperative micro enterprises, which are all owned, managed and operated by women fall under the list of below poverty line. In addition to more conventional enterprises, by anticipating the importance of ICT (Information, Communication and Technology) in contemporary economy, Kudumbashree has being taken lots of positive steps for the creation of more than hundreds of ICT-based micro enterprise units there by providing jobs for more than three thousand poor women and up-lifting the poor. This article will provide a clear insight on women's ICT based enterprises in Kerala from its inception, challenges now facing and organisations supporting technoprenurship.

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An ICT/Electronic enterprise owned and controlled by one or more women having a minimum financial holding of 51% or more, giving 51% or more employment to women. Women Technoprenurs in Kerala represent a group of women who have kaput away from the trampled buy and sell and are now exploring new avenues of economic participation packed with full of challenges. They have had to encounter public discrimination and denigration. Family opposition and social constraints had to be overcome before establishing themselves as Independent entrepreneurs. Establishing and managing a technology oriented industrial unit or business requires more effort, skill and risk. For the women Technoprenurs the risk perhaps is even greater as she has the additional problems of being in a male dominated society, having few role models and lacking confidence in her business skills. In spite of so many hurdles and limitations, the participation of women in Entrepreneurial activities is steadily increasing. The Kerala government has recognized this particular section as a source of potential entrepreneurs and also as a special target group to develop. Accordingly different developmental agencies have come up to assist them. Since this group is treated as a neglected section of the society in terms of their social orientation, skills and problems, there is a necessity to study the different problems faced and come up with possible solutions for promoting Women Technoprenurs.

The history of Women ICT based enterprises in Kerala started through the initiative of Kudumbashree because of the availability of financial support from the government schemes (Development of Women and Children in the Urban Areas (DWCUA) under Swarna Jayanti Shahari Rojgar Yojana (SJSRY)). During the end of 1990s Kudumbashree officials identified a number of potential micro sectors in which women's enterprises could setup and operates, including ICT based micro enterprises. Because of the lack of awareness, skills and confidence it was very difficult to materialize the ICT based

projects and needed a top-down push. The first unit was started on 15th Sept 1999, when Kudumbashree management identified a market opportunity in data entry work of government records.

The training and team building process was begun by the Kudumbashree team to identify potential women from BPL families to join the micro ICT unit and financial requirements were also proposed. For financing the first ICT unit, Kudumbashree team approached seven banks. But the banks were not ready to fund the projects despite a clear government order that banks should provide loans without a requirement for security. For the first data entry contract, three multinational companies were in the row to compete and came up with a bid of just Rs.3.64 Lakh. This move was forced the Kudumbashree ICT unit to stay back from the bidding process and at this point luckily two main Kudumbashree officers had to personally guaranteed the project.

Because of the sincere team work, the first data entry job went successfully and that brought goodwill and reputation. Kudumbashree central team requested the district officials to formally visit the first ICT unit and the result was that the Kudumbashree team set a target to setup 36 ICT units by 31st March 2000, but fortunately they managed to setup 48 micro ICT units. Meanwhile Kudumbashree central official's team invited women members of the Community Development Societies (CDSs) to visit the first ICT unit, and they got 2-3 day attachments with the unit for a few other potential unit founders. In addition, there was significant exposure within the media about the ICT unit. As a result, after just a very few more ICT units had been set up, there started to be much more bottom-up interest and then demand for creation of ICT units from the CDSs. Demand for women's ICT units further got momentum during 2000 when the state government ICT department agreed to give an order that state government departments could give orders for ICT services direct to Kudumbashree without need for tendering. Subsequently a similar order was issued for local governments throughout Kerala.

In developed as well as under developed countries, economic progress could be achieved only through social development, the achievement of which requires an equal participation of the women. But the status of women in our society is secondary and the role of women in the developmental process is marginal. Formation of Self Help Groups (SHGs) of women around micro-finance has been one of the interventions in India towards women empowerment. Kerala's development achievements have been considered by many as a model of viable development achieved through equitable distribution against the back ground of a relatively low economic growth. It has been successful in achieving a reduction in poverty. The success of Kerala has been realised through a holistic approach emphasizing structural changes such as land reforms, public provisions of health, education and other social infrastructure, public distribution system and more recently community participation through Decentralised Planning. However, there has been persistent poverty affecting a section of the population, causing a serious challenge to the policy makers. In Kerala, Kudumbashree Project aims at women empowerment through community based organisations as is evidenced from its slogan 'reach out to the family through women; reach out to the community through family'. It provide ample opportunity for social action and empowerment through their involvement in considering, addressing and participating in issues affecting the community in general and the members in particular.

Kudumbashree programme is formed with a view to helping the poverty stricken people to take initiative for a practical solution to poverty. According to the Kudumbashree mission, poverty is not merely a financial scarcity. But it also concerns the lack of a proper house, lack of fresh water, insufficient hygiene facilities, Lack of nutritional food, insufficient education facilities, lack of opportunities for expressing the opinions, insufficient medical facilities, problem of unemployment etc. In order to get the above mentioned problems solved, effective and many-sided programmes are being conducted by Kudumbashree. The meaning of Kudumbashree

is prosperity of the family. It is a disciplined movement formulated as a partnership of the State Government, Central Government, Local Governments and the National Bank for Agriculture and Rural Development. Its aim is to eradicate poverty from the State. Its activities are done through the three tier organisational structure formed under the leadership of Local Self Governments. The grass root level organisations of Kudumbashree system are the Neighbour Hood Groups (NHGs) comprising of 15 to 40 adult women members each from a distinct poor family of the area concerned. The NHGs are integrated in the ward level as Area Development Societies (ADS) and in the Corporation/ Municipal/ Panchayath level as Community Development Societies (CDS). The administrative power of these organisations functioning in three tier system is vested in the hands of women, chosen democratically from the poor families. The Kudumbashree movement has promoted women's empowerment and improved the situation of the poor families in the State. Thus the NHG strategy is used widely for organising the women.

There are three different types of women's ICT units under Kudumbashree initiative as mentioned below.

Data Entry Units

The 80 data entry units have around 10 core members each; in addition they employ a further 3,200 staff that includes women and few number of men. The data entry units of Kudumbashree principally involved in data entry work like digitisation of electoral rolls, or of licence records. In addition they are executing following nature of works .

- **Basic Data Analysis Work:** Survey data and then summarising that data into a report.
- **Web Design:** Undertook design of the page outlines, with women in the units filling data to complete the pages but later the women themselves started to undertake Web commissions.

- **Human Resource Supply:** Supply staff to government departments that require it. For example the state government's first call centre was staffed by women from a Kudumbashree ICT unit.

IT @ School Units (Under Vidyashree Brand)

The IT @ School units have around 6 core members each. The main activities of these units are to provide necessary computer software and hardware training to the government and aided secondary school students. Core groups are further divided in to three groups with two members .Each of the group focusing on activities of primer school, high school and secondary school respectively. If necessary this units will hire people from outside for assisting the project.

Hardware Assembly Units

The hardware assembly units have around 6 core members. The units undertake assembly, servicing and maintenance (AMC) of computers for government, schools and private enterprises. These units are also adopting supporting staffs (men) for the smooth functioning of units operations since women got certain limitation to attend remote services and maintenance. Hardware units under Kudumbashree ICT initiatives are under premature stage since it has not getting sufficient support from the government as well as local self government bodies.

Objectives of the Study:

- To study the women ICT based activities in Kerala
- To analyse problems faced by the Women Technoprenurs in kerala
- To suggest possible solutions for assisting and promoting Women Technoprenurs.
- To get the details about various institution supporting Women Technoprenurs in kerala.

Methodology

The study was carried out in Thiruvanthapuarm, Kollam, Pathanamtitta , Malappuram Districts of

Kerala by randomly selecting 100(85 ICT Units and 15Electronic Assembling Units) samples. The data for the study was mainly collected through personal interview and observation. The information was collected on various problems they are facing in business.

The Profile of Enterprise taken for Study

The SSI units selected for study is only those women managed units that is doing service related ICT (Data entry, Internet Cafe, DTP centres, Akshya E centres ,IT training, Small Software Development firms) and assembling of low value electronics products(like CFL lamp Adaptor ,electronic chokes, invertors etc).The details are depicted in **Table One**.

Challenges Faced By The Women Techno Entrepreneurs In Kerala

Challenges faced by the women techno entrepreneurs can be in seven categories as mentioned below.

- Socio Personal Challenges
- Financial Challenges
- Manufacturing/ Service Delivery Challenges
- Marketing Challenges
- Managerial Challenges
- Government Assistance
- Technical Challenges
- Entrepreneurial Challenges

The above mentioned each problems are further subdivided in to five sub factors for research purpose. The problems with percentage of responses are mentioned in below tables in detail.

Socio – Personal Challenges

Most of the techno women entrepreneurs are facing the problem of wrong attitude from the society and in this male dominated society women are encountered with many socio

personal problems as shown in **Table Two**. It is seen from the Table that 60% of the techno-women entrepreneurs are not getting sufficient family and community support. 40% of the them are facing the problem of male dominance. 20% of them are facing lack of higher education and information. Hardly 6% reported they are facing economic problems .10 % reported they afraid to take risk.

Financial Challenges

Finance is essential to start as well as to run a business enterprise. Most of the techno women entrepreneurs are facing financial problems at the time of starting as well as during operation of their business enterprises as depicted in **Table Three**.It is seen from Table that 78 % of the respondents find it difficult to get the required loan and subsidy in time 70 % facing working capital bottlenecks in their respective business. 60 % of them stated that more time is taken to process the loan and 30% complained about tight repayment schedule. By asking probing questions 74% of them did not have proper financial management and did not maintain proper accounts.

Manufacturing /Service Delivery Challenges

These problems are encountered by the women entrepreneurs during production process/ service delivery as shown in **Table Four**. It is seen from the Table that 20% of the respondents did not have adequate land, plots and premises for production process/service delivery. Only 10% of them are facing the problems of getting required components for production and this only concerned with electronic assembly units 60% of them stated that they did not get adequate technical support for product/service identification and innovation. 30% of them are facing problems of lack of up-gradation of Technology and quality controls. From the observation and interview it is clear that 37% of the samples were practicing poor inventory management/service delivery.

Marketing Challenges

Kerala industrial statistics clearly indicating that the major reasons behind the sickness of small

scale units are primarily because of marketing issues and working capital bottlenecks. Most of techno women entrepreneurs find it difficult to market their products/services. They do not possess the knowledge of how to market their products/services and whom to contact for the purpose. As women they face these marketing problems still more as depicted in **Table Five**. From the Table it is seen that 60% of the respondents did not know how to market their products. 80% of them reported that they are facing heavy competition from big enterprises. 40% of them stated that they are exploited by middlemen and find difficulty in collection of dues from credit sales (this is exclusive case of electronics assembling units) 70% of them were not seriously considering the importance of sales promotion/advertising. Hardly 8% (All are electronics assembly units) need export guidance and other export related inputs.

Managerial Challenges

A clear managerial skill sets and knowledge is essential for a Women Technoprenurs to run the enterprise in a successful manner .The various managerial problems faced by women entrepreneurs as observed and depicted in Table Six. It is seen from the Table that 60 % of the respondents are facing the problem of lack of knowledge of general management. 80% of them are facing the problem of lack of skilled labour 60% facing labour absenteeism and turnover 50% of them stated that they did not have any clear-cut objectives/vision for their business enterprise. 50% of them are facing the problem of transportation as women for procurement of inputs for running their enterprise.

Government Assistance

The Kerala state government implementing various assistance schemes for promoting women entrepreneurs. But in practice women entrepreneurs are facing many difficulties in obtaining various government assistances. The problems are mentioned in the **Table Seven**.From Table it is seen that 80% of the respondents feel that Government assistance is not adequate for

them. 80% of them stated that Red Tapism is prevailing at various levels. 20% of them stated that Advisory organizations are exploitive and dishonest. 70% of them stated the problem of complicated and time consuming procedures in getting the assistance, 70% of them feel that Government policies are not favorable and encouraging for them.

Technical Challenges

Even though the Kerala is blessed with numerous renewable energy sources, still we were not able to exploit its full potential to meet the domestic electricity demand . This will hinder the growth of our SSI sector and also the tariff rates are not supportive for the small sectors. The various technical problem associated with Women Technoprenurs as shown in Table Eight. From Table it is seen that 50% of the respondents feel that the power supply is inadequate and poor. 80% raised apprehensions on higher electricity tariff rate. 20% commend that high speed internet and telephone connectivity acting as a barrier for their growth. 70 % stated that higher internet and telephone charges pushing their margin down. 80% respondent reviles that they lags in new technology adoption because of higher switching cost.

Entrepreneurial Challenges

The success of any group enterprise activities depends up on the entrepreneurial traits associate with the team members .To identify the group members with required entrepreneurial trait is a Herculean task through proper awareness campaign and systematic selection process could be used for team selection and setting up of ICT units.

Suggestions for Supporting Women Technoprenurs

To eliminate the socio personal problems the government and nongovernmental originations especially women empowerment agencies should take necessary steps to conduct awareness programs by exploiting all possible mediums that highlights the role and importance of Women Technoprenurs in economic development of

nation and how the society get the benefits from it .The recent study indicate that the men started realising the importance of women in the society and stated supporting the same but it would take some time to get equality . The government should formulate appropriate policies to spread women entrepreneurship among students community starts from higher secondary level onwards through various government and nongovernmental bodies or adding a separate curriculum that ignite their mind and mentally prepare them to become future entrepreneur's. The entrepreneurship development agencies got a significant role in identifying and conducting skill development programmes for Women Technoprenurs.

Financial problems are another major issue faced by the Women Technoprenurs in kerala. Even though the state government highly eager to spread the women entrepreneurship and empowerment still the women entrepreneurs are facing so may bottlenecks to get the financial assistance from nationalised banks and other government financial institutions .Unnecessarily delay in processing the loan, collateral issues, repayment duration and toasting interest rates are really troubling entrepreneurial communities. The government should timely intervene on this matters to support the women entrepreneurs.

Marketing is a major problem faced by most of the Women Technoprenurs. Since majority of enterprises are distributed in nature they don't have any formal or informal organisation so it very difficult to address the issue as common. This problem could be solved by clustering and by formulating a informal organisation, then it is very easy to get the marketing related assistance from educational institutions like University management departments, other industrial training centres and also from various government and non government bodies. The small scale industries association can play a vital role for spreading women entrepreneurship and also addressing marketing and other major management issues related with Women Technoprenurs by conducting seminars, skill development programmes, workshops etc. The

Kerala Government may take steps to setup formal body like Marketing Organisation of Women Entrepreneurs (MOOWES) in Tamil Nadu to assist the women entrepreneurs. Even though sufficient government and non government institutions are available in Kerala for providing necessary training in production and management related matters for women entrepreneurs, its utilisation is very less. The state government should come up with portfolio based industrial training and development methodology like what State Industries Promotion Corporation of Tamil Nadu (SIPCOT) is practicing to impart training and skills for group, individual entrepreneurs through conventional and online method.

In the case of problem with government assistance, the state government industries department should give necessary directions to concerned sections and bodies to assist the entrepreneurs with out making much delay. These matters are beyond the control of entrepreneurs and the government should take adequate steps to address these issues timely.

The state electricity board may formulate appropriate polices for full utilisation all renewable energy source and control distribution loss so that adequate amount of electricity could generate for the domestic and non domestic requirement need of the state. The government should give necessary guidance to state electricity board and electricity regularity authority to look on tariff related matters and formulate practical strategies to help the Women Technoprenurs communities in Kerala.

Conclusion

The rapid growth in higher education, fast transition of society has contributed significant change in the mindset and attitude of Indian women. Now the Indian women are ready to take any challenging work assignments par with men. But still the movement of Women entrepreneurs development is in a transitional phase. It needs to cover long way to be on par with their male counter part. It is the responsibility of each state in India to take serious steps to

spread the role of women in economic development and motivate the young women minds to become entrepreneurs by continuously supporting and addressing their problems.

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TABLE ONE:

Districts	ICT Units	Electronic Assembling Units
Thiruvananthapuram	18	3
Kollam	20	4
Pathanamthitta	19	1
Malappuram	28	7
Total	85	15

TABLE TWO:

No:	Factors	Response	Percentage
1	Lack of family and community support	60(100)	60%
2	Male dominance	40(100)	40%
3	Lack of education and information	10 (100)	10%
4	Economic backwardness	63(100)	6%
5	Low risk bearing capacity	10(100)	10%

TABLE THREE:

No:	Factors	Response	Percentage
1	Problem of getting loan and subsidy	78(100)	78%
2	Working Capital requirement	70(100)	70%
3	Time taken to process loan	60(100)	60%
4	Tight repayment schedule	30(100)	30%
5	Poor Financial Management and maintenance of accounts	74(100)	74%

TABLE FOUR:

No:	Factors	Response	Percentage
1	Inadequate availability of land, plots and premises	20(100)	20%
2	Problem of getting required components, service consumables	10(100)	10%
3	Inadequate Technical support for Product /service identification and innovation	60(100)	60%
4	Lack of up gradation of Technology and Quality Control	30(100)	30%
5	Poor Inventory Management/service delivery	74(100)	74%

TABLE FIVE:

No:	Factors	Response	Percentage
1	Lack of knowledge of General Management	60(100)	60%
2	Lack of skilled labour	80(100)	80%
3	Labour Absenteeism and turnover	60(100)	60%
4	Lack of Clear cut objectives/vision	50(100)	50%
5	Transportation issues	50(100)	50%

TABLE SIX:

No:	Factors	Response	Percentage
1	Lack of knowledge of how to market the product/services	60(100)	60%
2	Heavy competition with Big enterprises	80(100)	80%
3	Exploitation by middlemen and Difficulties in collection of dues	40(100)	40%
4	Sales promotion efforts	70(100)	70%
5	Lack of Export marketing support	8(100)	8%

TABLE SEVEN:

No:	Factors	Response	Percentage
1	Inadequate Government assistance	80(100)	80%
2	Red tapism at various levels	80(100)	80%
3	Advisory organizations become exploitive and dishonest	20(100)	20%
4	Complicated and time consuming procedures for getting the assistance	70(100)	70%
5	Government policies are not favorable	70(100)	70%

TABLE EIGHT:

No:	Factors	Response	Percentage
1	Inadequate and poor power supply	50(100)	50%
2	Higher electricity tariff rate	80(100)	80%
3	Lack of high speed Internet and telephone connectivity	20(100)	20%
4	High Internet and telephone charges	70(100)	70%
5	Lack of new technology adoption	80(100)	80%

A STUDY OF EMOTIONAL INTELLIGENCE AND LEARNED OPTIMISM IN ACADEMICIANS OF PRIVATE PROFESSIONAL INSTITUTES AND PRIVATE TRADITIONAL COLLEGES

Vistas

PROF. VISHAL KHASGIWALA
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Does intelligence alone explain our achievement at work or in life. Contrary to our belief that academic achievement matters very much in the success we have in working life, Chen, et al. (1998) have shown that close to 90 percent of success in leadership positions is attributable to Emotional Intelligence (EI). "Learned Optimism" (LO). In general, optimism is used to denote a positive attitude or disposition that good things will happen independent of one's ability. The present study seeks to understand the significant difference in academicians in context of emotional intelligence and learned optimism who are teaching in private colleges/institutes running traditional and professional courses.

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EI has its roots in the concept of "social intelligence," which was first identified by Thorndike who defines social intelligence as "the ability to understand people, which is included in Gardner's inter- and intrapersonal intelligences in his theory of multiple intelligences. For convenience of study, psychologists have grouped intelligence into three clusters: abstract intelligence (the ability to understand and manipulate verbal and mathematic symbols), concrete intelligence (the ability to understand and manipulate objects), and social intelligence (the ability to understand and relate to people). By definition, emotional intelligence "is a type of social intelligence that involves the ability to monitor one's own and others' emotions, to discriminate among them, and to use the information to guide one's thinking and actions". According to Mayer and Salovey, EI subsumes Gardner's inter- and intra-personal intelligences, and involves abilities of four domains: identifying emotions, using emotions, understanding emotions, and regulating emotions. Emotional intelligence is increasingly being recognised as an important issue in the workplace for three main reasons:

1. Research has shown that for star performance in every field, EI is twice as important as cognitive abilities. For success at high levels, close to 90% of success is attributable to EI.
2. Companies and individuals are becoming more interested in their search for competitive advantage and recognise the need to balance rational and emotional aspects of strategy.
3. A major drive of interest has been the failure of IQ alone to account sufficiently for differences in success levels in individuals, both in educational and organisational contexts.

According to Goleman, Hope and Optimism both can be learned. He feels that self-efficacy, the belief that one has mastery over the events of

one's life and can meet challenges as they come up, lead to hope and optimism.

According to Snyder (1994), optimism differs from hope, as it contains a proactive component called planning and optimistic statements are usually based on logical, concrete facts.

The relationship between selecting achievable goals and optimism can be found in the concept of "Learned Optimism" (LO). Learned optimism is a sense of enthusiasm, confidence and control, which develops once, one, achieves small successes. Setting behaviorally based, achievable goals will appear to even the most pessimists among us that they are capable of accomplishing what they set out to do. If one sets unrealistic goals, or if one initiates a project haphazardly, the inevitable failures will certainly lead to abandonment of the project prematurely. But, when there is a target of achievable targets with even a slight favorable conditions, then it is possible to achieve any task successfully, all what is needed are the necessary resources, right direction and approach for work, dedication and positive attitude.

Review of Literature

Research also demonstrates a relationship between EI and individual and team performance. Perhaps due to an enhanced ability to recognize and manage emotions and brace against distracting emotions, EI skills connect both to individual cognitive-based performance and team task performance skills. A study (Lam and Kirby, 2002) of 304 undergraduate students demonstrated a positive influence of EI and the EI competency areas of emotional awareness and management on individual cognitive-based performance. Additional research (Jordan and Troth, 2004) found that teams comprised of members with high EI displayed better task performance skills when compared with teams made up of less emotionally intelligent members. Goleman (1998) suggests that for technical and complex positions in particular, a lack of EI may lead to diminished cognitive performance and an inability to accomplish tasks, especially with others. Much research is available which investigates top performing leaders and

leadership traits in relation to EI. Many authors (Gardner, 1999; Goleman et al., 2002; Kouzes and Posner, 1995; Wheatley, 1999) recognize the necessary shift from old-school management to true leadership. They describe traditional management as promoting methodical, detached, micro-managing supervisors who have extreme control over an employees' every step and actively separate any emotion from the workplace, similar to the transactional style of leadership. When these same authorsturn to describe successful leadership traits, their descriptions portray leaders who are aware and have an understanding of their own and other's emotions, and are able to use that understanding to effectively motivate, inspire, challenge, and connect with others, an approach aligned with the transformational style of leadership. In Kouzes and Posner's (1995) qualitative illustration of leader's proudest moments, leader reflections were described in terms of feelings, emotions, and challenges. These authors offer that transformational leadership traits and experiences such as these are more highly correlated with employee satisfaction and performance effectiveness than are transactional traits.

Studies (Gardner and Stough, 2002; Kobe et al., 2001; Palmer et al., 2001) show a correlation between EI and leadership experiences as well as between EI and aspects of transformational leadership, the style promoted as most effective and successful. For example, Gardner and Stough (2002) analyzed 110 senior-level managers and found those who were aligned with the transformational leadership style also indicated an ability to identify and apply knowledge of their own and others' emotions when interacting and addressing problems, and an ability to control their emotional states.

Knowing that EI is tied to successful leadership, it follows that skills of emotionally intelligent people, like flexibility, conflict management, persuasion and social reasoning, become increasingly important with advancing levels in leadership hierarchy (Mandell and Pherwani, 2003). Initial research in this area compared EI scores of middle and senior level managers to

determine promotion readiness, explored EI as an explanation for the advancement of managers, and weighed EI against intellect and managerial skills in assessing outstanding versus average senior level leaders. Specifically, a comparison of senior managers with middle managers targeted for promotion resulted in significantly higher scores among senior managers in EI and the competency areas of innovation, commitment, political awareness, leadership, change catalyst, and team capabilities, supporting EI as a measurement tool for promotion readiness (Langley, 2000). Also, a seven-year longitudinal study (Dulewicz and Higgs, 2003) revealed EI as more important than intellect and other management competencies in the advancement of managers. Results indicated that intellect accounted for 27 percent and management competencies for 16 percent, while EI explained 36 percent of the variances in advancement. The same study further analyzed the skills of senior directors and managers. The director group presented significantly higher scores on overall EI and on interpersonal sensitivity and emotional resilience. The authors found no difference amongst the directors and managers at all, however, in intellect or other managerial competencies. Finally, not only is EI an increasingly indicative reason for stellar performance as rank rises in an organization, but as opposed to cognitive or technical abilities, it explains 85 percent of the variance between outstanding and average senior leaders (Goleman et al., 2002).

These initial studies yield telling results that offer support for the relationship between effective leaders and EI, as well as for the theory that with increasing leadership levels in an organization, one will find increasing levels of EI. Further, particular EI competencies appear as especially crucial for directors of organizations; “motivation, interpersonal sensitivity, intuitiveness, conscientiousness and integrity” are undoubtedly relevant for a director’s role in “determining the company’s vision, mission and values” (Dulewicz and Higgs, 2003, p. 206).

Scheier & Carver, (1985) have developed to assess individual differences in generalized optimism

versus pessimism. This measure has been used in a good deal of research on the behavioral, affective, and health consequences of this personality variable. Although LOT was widely used, it had some problems. Most important was that its original items did not all focus as explicitly on expectations for the future as theory dictated. In part to remedy this deficiency, the authors developed a modest revision of the LOT, called LOT-R (Scheiver and Carver, 1993).

Martin Seligman (1991) has developed a short inventory for assessing learned optimism, (ASQ- Attribution Style Questionnaire), a personality dimension which is designed to measure the ways in which people perceive positive and negative events in their lives. According to Seligman, individuals high in optimism tend to view positive events as temporary and situational. Seligman, et.al, (1990) in an interesting study conducted on Summer Olympics swimmers found out that after giving a false feedback of poor performance during the practice sessions, swimmers score high on the ASQ did as well or even better than the previous swim sessions. The swimmers scoring low on the ASQ (the pessimists) all did even worse on their second try. This group of swimmers had been dispirited.

Objective of the Study

- To study and compare EI and LO of the Academicians of Private colleges/Institutes teaching traditional courses and professional courses.
- To find out factors for private professional institutes and private traditional colleges in the context of LO and EI.

Hypothesis

- H0 =EI and LO in academicians of private colleges (traditional courses) and private institutes (professional courses) is same.
- H1 = EI and LO in academicians of private colleges (traditional courses) and private Institutes (professional courses) is not same.

Research Methodology

- Research Type – exploratory
- Sample size - 70 i.e. 35 academicians from private colleges running traditional courses and 35 academicians from private institutes running professional courses.
- Sampling unit – respondents are academicians of private colleges of Indore (MP) running traditional courses and academicians of private institutes of Indore (MP) running professional courses.
- Sampling technique – simple random
- Tool for data collection- Scales of EI and LO (The EI scale used is of Anukool M. Hyde, Dr. S. Pethe, Dr. U. Dhar & LO scale is of Sanjyot Pethe, Sushama Chaudhari, Santosh Dhar and Upinder Dhar).
- Tools for data analysis - Z-Test (at 5% level of significance), Factor analysis.

$Z_{\text{Calculated}} < Z_{\text{Tabulated}} = H_0 \text{ Accepted}$

$Z_{\text{Calculated}} > Z_{\text{Tabulated}} = H_0 \text{ Rejected}$
($H_1 \text{ Accepted}$)

Result and Discussion

Since $Z_{\text{cal}} (3.748) > Z_{\text{tab}} (1.96)$, this infers that there is a significant difference in EI and LO of academicians of private colleges (traditional courses) and private institutes (professional courses). Looking to mean score of both categories, it can be said that EI and LO of academicians working in private colleges, running traditional courses is better than EI and LO of academicians working in private colleges, running professional courses (**Refer Table One**).

In Kouzes and Posner's (1995) qualitative illustration of leader's proudest moments, leader reflections were described in terms of feelings, emotions, and challenges. These authors offer that transformational leadership traits and experiences such as these are more highly correlated with employee satisfaction and

performance effectiveness than are transactional traits. Studies (Gardner and Stough, 2002; Kobe et al., 2001; Palmer et al., 2001) show a correlation between EI and leadership experiences as well as between EI and aspects of transformational leadership, the style promoted as most effective and successful. For example, Gardner and Stough (2002) analyzed 110 senior-level managers and found those who were aligned with the transformational leadership style also indicated an ability to identify and apply knowledge of their own and others' emotions when interacting and addressing problems, and an ability to control their emotional states.

It is essential for a manager to be effective; he must possess personal variables that push him towards increased effectiveness and learned optimism is one such variable. Same thing applies to sales executives who in the quest to satisfy consumers and to accomplish large sales targets need to be positive in their approach. The behavioral approach to managerial effectiveness suggests that there are certain qualities a manager should possess to effectively deal with situations he/she encounters. These traits include high energy level, stress tolerance, integrity, emotional maturity and self-confidence (Bass, 1990).

Snyder (1994) has contended that optimism differs from hope, because it contains the proactive component of planning. Optimistic statements are usually based on logical and concrete facts. Yet optimism can be developed amongst salespeople and sales managers so that they can at least cope up with the tremendous amount of work stress that is built on them due to fluctuations in market conditions, changing customer demands and huge sales targets.

Since Pearson's correlation coefficient is (.6358), which means that there is positive and high correlation between variable X (Emotional Intelligence) and variable Y (Learned optimism).

Factor Analysis

With the help of SPSS, Factor analysis for private colleges (running traditional courses) and private Institutes (running professional courses) has been done.

Private Colleges (Traditional Courses)

Factor 1: Self Development: This factor was constituted of I feel that I must develop myself even when my job does not demand it, factor load- (.892634), I believe that criticism has a potential for improvement, factor load- (.845803), I can listen to someone without the urge to say something, factor load- (.721071), I am comfortable with and open to novel ideas and new information, factor load- (.632409), I am able to identify and separate my emotions, factor load- (.553094), I think that feeling should be managed, factor load- (.513647), One can achieve success with hard work and dedication, factor load- (.455677), I can concentrate on the task at hand in spite of disturbances, factor load- (.381774) and total factor load was 4.996109 with 9.683402 percent of variance as shown in **Table Two**. Variables show that individual believes that there is a scope in self development. Individual has a good listening capacity and believes that hard work gives success in life.

Factor 2: Distinct Optimism: This factor was constituted of I am optimistic about any task that I undertake, factor load- (.900234), I do my work with distinct optimism, factor load- (.900234), I trust that my future will be better, factor load- (.669356), I am persistent in pursuing goals despite obstacles and setbacks, factor load- (.627073), I am organized and careful in my work, factor load- (.588323), and total factor load was 3.058147 with 6.724305 percent of variance. Variables highlight that Individual is very optimistic and organized in life.

Factor 3: Positive Attitude: This factor was constituted of When I fail, I think that I need to exert more efforts, factor load- (.913904), When I see a difficult situation I tend to solve it, factor load- (.913904), I think I can recover quickly from setbacks, factor load- (.62256), I agree that the best is yet to come, factor load- (.62256) and total factor load was 3.072928 with 6.430177 percent of variance. Under this factor, variables show that an individual has a positive attitude and with this he can solve any problem in life.

Factor 4: Healthy Relations: This factor was constituted of Every opportunity has a potential

for success, factor load- (.924135), While going to meet a new person I look forward to healthy relationship, factor load- (.924135), I am persistent in pursuing goals despite obstacles and setbacks, factor load- (.381266), and total factor load was 2.229536 with 6.254936 percent of variance. In this factor, variables highlight that an individual is a social animal in real sense.

Factor 5: Positive Feelings: This factor was constituted of I am sure that my successes will be more than my failures in the long run, factor load- (.877516), I believe that life continues to offer opportunities, factor load- (.877516), I am able to assess the situation and then behave, factor load- (.763255) and total factor load was 2.518287 with 5.763843 percent of variance. This factor contains variables which are optimistic and makes a person successful in life.

Factor 6: Balanced Individual: This factor was constituted of I have built rapport and made and maintained personal friendships with work associated, factor load- (.767587), I do not mix unnecessary emotions with issues at hand, factor load- (.722995), I am able to stay focused even under pressure, factor load- (.573945), I can stand up for my beliefs, factor load- (.5461), I believe that every cloud has a silver lining, factor load- (.53338), and total factor load was 3.144007 with 5.683243 percent of variance. This factor highlights the balanced personality of an individual.

Factor 7: Optimistic Behaviour: This factor was constituted of I believe in myself, factor load- (.855614), I can encourage others to work even when things are not favourable, factor load- (.543266), I am perceived as friendly and outgoing, factor load- (.470225), I can see the brighter side of my situation, factor load- (.434631) and total factor load was 2.303736 with 4.917056 percent of variance. This factor highlights that an individual he can do anything in adverse conditions and he is friendly too.

Factor 8: Conflict Management: This factor was constituted of I can handle conflicting demands of people in my life, factor load- (.901353), I am able to confront unethical actions of others, factor load- (.567376), I am able to encourage people

to take initiatives, factor load-(.32859) and total factor load was 1.797319 with 4.844843 percent of variance. This factor identifies that an individual believes in managing inter and intra conflict.

Factor 9: Self Motivation: This factor was constituted of I do not depend on other encouragement to do my work well, factor load-(.920849), I try out new idea for making today's processes better, factor load-(.538866), I have my priorities clear, factor load-(.456519) and total factor load was 1.916234 with 4.592804 percent of variance. This factor mentions that an individual is having capacity to do anything on his own and he tries new ideas for completion of work..

Factor 10: Empathy: This factor was constituted of I can handle conflicts around me, factor load-(.823253), I pay attention to the worries and concerns of the others, factor load-(.545342) , I believe that happiness is a positive attitude, factor load-(.537837), I know that my hard work will not go waste, factor load-(.515855), and total factor load was 2.422287 with 4.342518 percent of variance. This highlights that an individual sees others problems as though he is facing that problem.

Factor 11: Honesty: This factor was constituted of I am able to maintain the standards of honesty and integrity, factor load-(.79711), and total factor load was .79711 with 4.224863 percent of variance. This factor highlights that an individual makes balance in life. His priority is honesty.

Factor 12: Hardworking: This factor was constituted of When I fail I try harder, factor load-(.893711) and total factor load was .893711 with 4.171337 percent of variance. This factor highlights that an individual believes in hard work.

Factor 13: Composed: This factor was constituted of I am able to stay composed in both good and bad situations, factor load-(.85458), I pursue goals beyond what is required and expected of me, factor load-(.640745) and total factor load was 1.495325 with 4.112774

percent of variance. This factor infers that an individual possesses composed personality.

Factor 14: Bright Future: This factor was constituted of I am confident that my future is bright, factor load-(.772595), I try to see the other person's point of view, factor load-(.744205) and total factor load was 1.5168 with 4.085494 percent of variance. This factor says that an individual's future is bright because of skills and hard work.

Factor 15: Positive Thinking: This factor was constituted of I believe present crisis will form strong basis for tomorrow, factor load-(.799374), I am able to meet commitments and keep promises, factor load-(.67596), I believe that failures are temporary setbacks, hence can be overcome, factor load-(.512136) and total factor load was 1.98747 with 4.036467 percent of variance. This factor infers that an individual has a positive thinking which makes him in overcoming with problems.

Factor 16: Inspiring: This factor was constituted of People tell me that I am an inspiration for them, factor load-(.752914), I can continue to do what I believe in, even under severe criticism, factor load-(.68774) and total factor load was 1.440654 with 4.030319 percent of variance. This factor highlights that an individual inspires others so that they can move ahead and prosper.

Factor 17: Self Awareness: This factor was constituted of I am aware of my weakness, factor load-(.921502), I believe that tough times never last, factor load-(.446164) and total factor load was 1.367666 with 3.788329 percent of variance. This factor highlights that an individual knows about himself which helps him in developing himself and facing the situation.

Factor 18: Multi-skilling: This factor was constituted of I am able to handle multiple demands, factor load-(.897863), I am able to make intelligent decisions using a healthy balance of emotions and reasons, factor load-(.53985) and total factor load was 1.43771 with 3.030369 percent of variance. This factor highlights that an individual has variety of skills and has a potential to balance life.

Private Institutes (Professional Courses)

Factor 1: Innovative and Hard working. This factor was constituted of I try out new ideas for making today's processes better, factor load-(.836592), I know that my hard work will not go waste, factor load-(.778667), When I fail I try harder, factor load-(.751948), I have my priorities clear, factor load-(.532384), I am able to maintain the standards of honesty and integrity, factor load-(.483035), While going to meet a new person I look forward to healthy relationship, factor load-(.412468), and total factor load was 3.795094 with 8.592208 percent of variance (Table 3). This factor presents that an individual is an innovative and hardworking person which makes him to do assignments in a proper manner.

Factor 2: Balanced Personality. This factor was constituted of I am able to stay composed in both good and bad situations, factor load-(.889314), I am persistent in pursuing goals despite obstacles and setbacks, factor load-(.816326), I can continue to do what I believe in, even under severe criticism, factor load-(.578542), I can handle conflicts around me, factor load-(.410078), When I fail, I think that I need to exert more efforts, factor load-(.407542), I am able to meet commitments and keep promises, factor load-(.398841), and total factor load was 3.500643 with 6.784293 percent of variance. This factor mentions that an individual has a balanced personality even when things are going wrong.

Factor 3: Emotionally Stable. This factor was constituted of I am able to identify and separate my emotions, factor load-(.865026), I am able to confront unethical actions of others, factor load-(.679669), I believe that tough times never last, factor load-(.522727), I can handle conflicting demands of people in my life, factor load-(.43476), and total factor load was 2.502182 with 6.047348 percent of variance. This factor highlights that an individual has a capacity to separate emotions and able to confront unethical actions.

Factor 4: Dedication and Optimism. This factor was constituted of One can achieve success with hard work and dedication, factor load-

(.883585), I can stand up for my belief, factor load-(.706273), I am confident that my future is bright, factor load-(.629914), I can see the brighter side of my situation, factor load-(.501788), and total factor load was 2.6656 with 5.966645 percent of variance. This factor states that an individual is dedicated towards work and very optimistic about future.

Factor 5: Goal Setting. This factor was constituted of I pursue goals beyond what is required and expected of me, factor load-(.869926), I am able to handle multiple demands, factor load-(.783223), I believe present crisis will form strong basis for tomorrow factor load-(.483116), and total factor load was 2.136265 with 5.895127 percent of variance. This factor highlights that an individual believes in achieving goal.

Factor 6: Self Assessment. This factor was constituted of I believe that failures are temporary setbacks, hence can be overcome, factor load-(.852414), I am able to assess the situation and then behave, factor load-(.560359), I believe that criticism has a potential for improvement, factor load-(.48502) and total factor load was 1.897793 with 5.667439 percent variance. The factor states that an individual believes that he needs to analyze the situation first then go for action.

Factor 7: Developmental Attitude. This factor was constituted of I have built rapport and made and maintained personal friendships with work associated, factor load-(.853367), I feel that I must develop myself even when my job does not demand it, factor load-(.596575), I am able to encourage people to make initiative, factor load-(.51409), I do not mix unnecessary emotions with issues at hand, factor load-(.455887), I believe that life continues to offer opportunities, factor load-(.451935), I am able to make intelligent decisions using a healthy balance of emotions and reasons, factor load-(.43355), I am able to stay focused even under pressure, factor load-(.391784), and total factor load was 3.697188 with 5.647985 percent of variance. The said factor highlights that an individual makes relations with others at the workplace and encourages people to be self starter.

Factor 8: Motivator. This factor was constituted of People tell me that I am an inspiration for them, factor load- (.724659), I can listen to someone without the urge to say something, factor load- (.666791), I do my work with distinct optimism, factor load- (.56553), I can concentrate on the task at hand in spite of disturbances, factor load- (.424036) and total factor load was 2.381016 with 5.130225 percent of variance. This factor mentions that an individual inspires others and can handle tasks even in disturbances .

Factor 9: Emotionally Stable. This factor was constituted of I think I can recover quickly from setbacks, factor load- (.794971), I believe that happiness is a positive attitude, factor load- (.743029), and total factor load was 1.538 with 5.113189 percent of variance. This factor mentions that an individual is an emotionally stable.

Factor 10: Self Improvement. This factor was constituted of I am aware of my weakness, factor load- (.793053), I am comfortable with and open to novel ideas and new information, factor load- (.684805), I believe in myself, factor load- (.460943), I am sure that my successes will be more than my failures in the long run, factor load- (.43137), and total factor load was 2.370171 with 4.575932 percent of variance. This factor mentions that an individual has a feeling that he has to improve a lot and has to be open minded person.

Factor 11: Organised. This factor was constituted of I am organized and careful in my work, factor load- (.930492), I try to see the other person's point of view, factor load- (.462739), and total factor load was 1.393231 with 4.339428 percent of variance. This factor mentions that an individual is well organized in his activities.

Factor 12: Encouraging Attitude. This factor was constituted of I think that feeling should be managed, factor load- (.919501), I can encourage others to work even when things are not favourable, factor load- (.450545), and total factor load was 1.370046 with 4.165257 percent of variance. This factor mentions that an individual

has an attitude to encourage others so that they can manage their activities later on.

Factor 13: Optimistic. This factor was constituted of I agree that the best is yet to come, factor load- (.905291) and total factor load was .905291 with 4.138193 percent of variance. This factor mentions that an individual has an optimistic attitude which enables him in completing the assignments in an appropriate manner.

Factor 14: Problem Solving Attitude. This factor was constituted of When I see a difficult situation I tend to solve it, factor load- (.778559), Every opportunity has a potential for success, factor load- (.45157) and total factor load was 1.230129 with 3.999186 percent of variance. This factor mentions that an individual tries to solve problem of others as he considers others as human beings.

Factor 15: Self Starter. This factor was constituted of I do not depend on others encouragement to do my work well, factor load- (.907681) and total factor load was .907681 with 3.966862 percent of variance. This factor mentions that an individual takes initiative in handling activities which motivates others to come forward.

Factor 16: Friendly. This factor was constituted of I am perceived as friendly and outgoing, factor load- (.798609), I believe that every cloud has a silver lining, factor load- (.51148) and total factor load was 1.310089 with 3.588547 percent of variance. This factor mentions that an individual has a friendly nature and has a positive thinking in life.

Factor 17: Futuristic. This factor was constituted of I am optimistic about any task that I undertake, factor load- (.726369), I trust that my future will be better, factor load- (.600674), and total factor load was 1.327043 with 3.519369 percent of variance. This factor mentions that an individual has a futuristic approach in dealing things.

Factor 18: Empathy. This factor was constituted of I pay attention to the worries and concerns of the others, factor load- (.849344) and total factor load was .849344 with 2.947938 percent of variance. This factor mentions that an individual

puts himself in others shoes before saying and doing anything (**Refer Table Three**).

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TABLE ONE: MEAN AND Z VALUE

S.NO.	COMPARISON BETWEEN	MEAN	Z VALUE CALCULATED
1.	Academicians of private colleges running Traditional courses	M1= 205.4	3.748
2.	Academicians of private colleges running Professional courses	M2= 167	

TABLE TWO: SHOWING FACTORS WITH FACTOR LOAD AND % OF VARIANCE IN PRIVATE COLLEGES-TRAD.COURSES

Factor No	Factor	Factor load	Percent of variance
1	Self Development	4.996109	9.683402
2	Distinct Optimism	3.058147	6.724305
3	Positive Attitude	3.072928	6.430177
4	Healthy Relations	2.229536	6.254936
5	Positivity	2.518287	5.763843
6	Balanced Individual	3.144007	5.683243
7	Optimistic Behaviour	2.303736	4.917056
8	Conflict Management	1.797319	4.844843
9	Motivator	1.916234	4.592804
10	Empathy	2.422287	4.342518
11	Honesty	.797118	4.224863
12	Hardworking	.893711	4.171337
13	Composed	1.495325	4.112774
14	Bright Future	1.5168	4.085494
15	Positive Thinking	1.98747	4.036467
16	Inspiring	1.440654	4.030319
17	Self Awareness	1.367666	3.788329
18	Multi-skilling	1.437713	3.030369

TABLE THREE: SHOWING FACTORS WITH FACTOR LOAD AND % OF VARIANCE IN PRIVATE COLLEGES-PROFESSIONAL COURSES

Factor No.	Factor	Factor load	Percent of variance
1	Innovative and hardworking	3.795094	8.592208
2	Balanced Personality	3.500643	6.784293
3	Emotionally Stable	2.502182	6.047348
4	Dedication and Optimism	2.6656	5.966645
5	Goal Setting	2.136265	5.895127
6	Self Assessment	1.897793	5.667439
7	Developmental Attitude	3.697188	5.647985
8	Motivator	2.381016	5.130225
9	Emotional Stable	1.538	5.113189
10	Self Development	2.370171	4.575932
11	Organised	1.393231	4.339428
12	Encouraging Attitude	1.370046	4.165257
13	Optimistic	.905291	4.138193
14	Problem Solving Attitude	1.230129	3.999186
15	Self Starter	.907681	3.966862
16	Friendly	1.310089	3.588547
17	Futuristic	1.327043	3.519369
18	Empathy	.849344	2.947938

IMPACT OF MACRO ECONOMIC FACTORS ON INSURANCE INNOVATION IN INDIA: AN EMPIRICAL STUDY

DR. R. K. SHARMA
PROF. VISHAL SOOD

Vistas

Financial markets are a part of the changing business scenario worldwide. In fact, the financial markets are the first to unfold the vision and imagination that leads to financial revolution in insurance industry. Today, globalization of competencies, thinking and perspectives has been the part of Strategic Action Plan of all the major competitors in the insurance markets, globally. The intensive competition across the market operators and the pressure to perform by the stakeholders has resulted in competition being intense than ever before. Both the business landscape and chemistry of the competition has changed drastically over the period of time. All around, there is a fresh thinking on the financial products, structure of market players and possibilities for value creation. We can say financial markets are being redefined, reinvented and reconfigured on a persistent basis since late 2000. Insurance innovation—like innovation elsewhere in business—is an ongoing process where by private parties experiment to try to differentiate their products and services, responding to both sudden and gradual changes in the economy. Surely, innovation ebbs and flows with some periods exhibiting bursts of activity and others witnessing a slackening or even backlash. However, when seen from a distance, the process of innovation—in this instance, financial innovation—is a regular ongoing part of a profit maximizing economy. This paper will cover the recent trends in insurance innovation and our attempt is to find out the Impact of GDP & WPI on the insurance innovation revolution in India.

“The complexity and speed of financial innovation has reached the point where it is hard to grasp what is happening from moment to moment. Amateur investors and many professionals are wary of space-age trading strategies and kinky financial instruments.”

Dr. Raj Kishore Sharma, Professor, Prestige Institute of Management & Research, Indore.

Prof. Vishal Sood, Senior Lecturer, Finance & Accounts, Maharaja Ranjit Singh College of Professional Sciences, Indore.

In India, reforms to improve efficiency and soundness of the Insurance sector started early in the reform cycle in 2000 when the global gateway for the private players were opened- in some ways anticipating the gains that would accrue from the resultant flexibility in product and factor markets. However, the process of strengthening of the functioning of the financial institutions in terms of prudential framework, operational efficiency and regulatory / supervisory regimes has been gradual. It was also calibrated with the development of money, FOREX, Govt. securities and equity markets. The pace of capital & credit reforms is rapid & is transforming the scenario. The existence of a variety of financial innovations with different terms & conditions, now provide a wider range of financial assets.

Meaning of Financial Innovation

Much of the theoretical and empirical work in financial economics considers a highly stylized world in which there are few types of securities (insurance, debt and equity, perhaps) and maybe a handful of simple financial institutions (banks or exchanges.) However, in reality there is a vast range of different financial products, many different types of insurance institutions and a variety of processes that these institutions employ to do business. The literature on insurance innovation attempts to catalog some of this variety, describe the reasons why we observe an ever-increasing diversity of practice, and assess the private and social implications of this activity. “Insurance” facilitates reimbursement during crisis situations, insurance means promise of compensation for any potential future losses. There are different insurance companies that offer wide range of insurance options and an insurance purchaser can select as per own convenience and preference. Several insurances provide comprehensive coverage with affordable premiums. Premiums are periodical payment and different insurers offer diverse premium options. The periodical insurance premiums are calculated according to the total insurance amount. The main meaning of insurance is used

as effective tools of risk management. Quantified risks of different volumes can be insured. The act of insuring, or assuring, against loss or damage by a contingent event; a contract whereby, for a stipulated consideration, called premium, one party undertakes to indemnify or guarantee another against loss by certain specified risks.

“Innovate” is defined in Webster’s Collegiate Dictionary as **“To introduce as or as if new,”** with the root of the word deriving from the Latin word **“Novus”** or new. Economists use the word **“Innovation”** in an expansive fashion to describe shocks to the economy (e.g., “monetary policy innovations”) as well as the responses to these shocks (e.g., Euro deposits). Broadly speaking, **“Insurance Innovation”** is the act of creating and then popularising new insurance instruments as well as new financial technologies, institutions and markets.”

The “Innovations” are sometimes divided into product or process innovation, with product innovations exemplified by new derivative contracts, new corporate securities or new forms of pooled investment products, and process improvements typified by new means of distributing securities, processing transactions, or pricing transactions. In practice, even this innocuous differentiation is not clear, as process and product innovation is often linked. The processes by which one creates a new index linked to college costs or invests to produce returns that replicate this index are hard to separate from a new indexed investment product that tries to help parents save to pay for their children’s education.

Innovation includes the acts of invention (the ongoing research and development function) and diffusion (or adoption) of new products, services or ideas. Invention is probably an overly generous term, in that most innovations are evolutionary adaptations of prior products. The lexicographer’s addition of the phrase “as if” to the definition of innovation reflects one difficulty in any study of this phenomenon—almost nothing is completely “new” and the degree of newness or novelty is inherently subjective. (Patent examiners charged with judging the novelty of inventions face this challenge routinely.)

One sub-branch of the literature on financial innovation has created lists or taxonomies of innovations. Given the breadth of possible innovations, this work tends to specialize in particular areas, such as securities innovations. For example, Finnerty (1988, 1992, 2001) has created a list of over 60 securities innovations, organized by broad type of instrument (debt, preferred stock, convertible securities, and common equities) and by the function served (reallocating risk, increasing liquidity, reducing agency costs, reducing transactions costs, reducing taxes or circumventing regulatory constraints.) One investment bank published a guide to innovative international debt securities in the mid-1980s.

Some of the securities listed were nearly-identical products offered by banks trying to differentiate their wares from those of their competitors. Others represented evolutionary improvements on earlier products. Perhaps a few were truly novel. There has been tremendous innovation in exchange-traded derivatives, over-the-counter derivative contracts (such as the credit derivatives, equity swaps, weather derivatives and exotic over-the-counter options), new insurance contracts (such as alternative risk transfer contracts or contingent equity contracts), and new investment management products (such as exchange traded funds.)

Need of Insurance Innovations

If the world were free of all **“Imperfections”**—such as taxes, regulation, information asymmetries, transaction costs, and moral hazard—and if markets were complete in the sense that existing securities spanned all states of nature, we could arrive at an M&M-like corollary regarding financial innovation. Insurance innovations would benefit neither private parties nor society and would simply be neutral mutations. Against this backdrop, a sizeable body of literature attempts to understand how various “imperfections” (and changes in these imperfections) stimulate insurance innovation. These imperfections prevent participants in the economy from efficiently obtaining the functions they need from the financial system. Generally, authors establish how financial innovations are

optimal responses to various basic problem or opportunities, such as incomplete markets that prevent risk shifting or asymmetric information. Some of these analyses are “institution-free” in that they do not clearly consider the role of innovators in the process, while other institutionally-grounded explanations study the parts played by insurance industries using innovation to compete.

Functions of Financial Innovation

- Merton’s (1992) functional decomposition identifies six functions of financial systems:
- Moving funds across time and space
- The pooling of funds
- Managing risk
- Extracting information to support decision-making
- Addressing moral hazard and asymmetric information problems
- Facilitating the sale of purchase of goods and services through a payment system.
- Peter Tufano (2002) in his paper identifies following functions of Financial Innovation:

Innovation exists to complete inherently incomplete markets. In an incomplete market, not all states of nature can be spanned, and as a result, parties are not able to move funds freely across time and space, nor to manage risk.

Innovation persists to address inherent agency concerns and information asymmetries: Much of contracting theory (or the security design literature) explores how contracts can be written to better align the interests of different parties or to force the revelation of private information by managers.

Innovation exists so parties can minimize transaction, search or marketing costs: The presence of transaction costs provides a critical role for financial intermediaries. Financial

intermediaries permit households facing transaction costs to achieve their optimal consumption-investment program. Merton uses this argument to explain how equity swaps can be an efficient way to deliver returns to multinational investors. Many of the process innovations in payment systems technologies are aimed at lowering transaction costs. ATMs, smart cards, ACH technologies, e-401k programs and many other new businesses are legitimate financial innovations that seek to dramatically lower the sheer costs of processing transactions.

Innovation is a response to taxes and regulation: Miller (1986) is often cited on this point: “The major impulses to successful innovations over the past twenty years have come; I am saddened to have to say, from regulation and taxes.” The list of tax and regulatory induced products would include zero coupon bonds, Eurodollar Eurobonds, various equity-linked structures used to monetize asset holdings without triggering immediate capital gains taxes, and trust preferred structures.

Increasing globalisation and risk motivate innovation: financial innovation identify globalization and increasing volatility as drivers of innovation. With greater globalization, firms, investors and governments are exposed to new risks (exchange rates or political risks), and innovations help them manage these risks.

Technological shocks stimulate innovation: Shocks to technology are thought to provide a “supply-side” explanation for the timing of some innovations.²⁰ Advances in information technology support sophisticated pooling schemes that we observe in securitization. IT and improvements in telecommunications (and more recently the Internet) has facilitated a number of innovations (not all successful), including new methods of underwriting securities (e.g., OpenIPO), new methods of assembling portfolios of stocks (folioFN), new markets for securities and new means of executing security transactions.

Rationale of the Study

While India has been maintaining one of the highest growth rates among countries past few

years, the growth dynamics has dramatically shifted in the last three to four years and the economy is poised to break from an intermediate growth rate of around 6 percent to a high growth rate regime of well above 8 percent. Despite high levels of internal resource generation and access to external borrowings, credit demand across sectors also had picked up quite substantially pushing the rate of investment to new heights.

Real GDP growth has averaged 8.7 per cent per annum during the 5-year period ending 2007-08. The present domestic investment rate of around 36-37 per cent is expected to help sustain the current growth momentum. In Indian economic history, there has never been this order of growth for five consecutive years; this has been achieved while keeping inflation low and stable and anchoring inflationary expectations.

From the above facts, it is evident that Gross Domestic Product (GDP) & Wholesale Price Index (WPI) of India are having some impact on the insurance innovation. Through our analytical study we are trying to find the individual and combined impact of both the factors GDP, & WPI on the insurance innovation in India and their inter relationship and coordination among each other.

Objectives of the Study

- To cram the collision of GDP on Insurance Innovation in India.
- To investigate the force of WPI on Insurance Innovation in India.
- To study the combined influence of GDP, & WPI on Indian Insurance Innovation.

Hypothesis of the Study

H₀: There is no significant relation between Insurance Innovation, GDP & WPI. (Refer Annexure One).

Research Methodology

The Study Area

The present study is empirical and analytical in nature, designed to analyse the impact of GDP &

WPI on Insurance Innovation in India and vice versa. The study is focused on economic contribution made by the players in the market. As our study is based on the macro economic factors, we are therefore considering the secondary data to continue our study and further conclude the relationships & inter dependency of variables within. As private players came in the market in late 2000, we are taking the data ranging from 1999 to 2008. Hence we are using stratified sampling as a base to continue our research.

Data Analysis Tool

In every study we require some gear to justify the hypothesis which can be carried by using few specific statistical techniques. Thus we will be using Multiple Correlation and Multiple Regression in concluding our objectives and proving the hypothesis.

Multiple Correlation Analysis:

Multiple Correlation is a tool to trace the mutual influence on one another which helps in identifying the important factors associated with the variables of interest at a same time. It indicates the strength of relationship between the variables. In our study a dependent variable is indicated by Insurance Innovation (**X**) & the independent variables by WPI (**Y**) & GDP (**Z**) respectively. With the help of this statistical technique we are going to bear out that there is no association between the macro economic factors on insurance innovation. (**Refer Table One**)

Multiple Regression Analysis

Multiple Regressions is a statistical technique to predict in the dependent variable by regressing the independent variable against it. Here the term variance indicates the dispersion of a variable in the data set, and is obtained by subtracting the mean from each of the observations, squaring the results, summing them, and dividing the total by the number of observations. This instrument will help us in supporting the hypothesis that the variables are independent. (**Refer Table Two & Three**)

Data Analysis & Data Interpretation

Data Interpretation

The change in Insurance Innovation will result to change in, WPI & GDP changes in positive direction and vice versa. The study also proves the dependency among all the desired factors. As depicted in **Table Four** it is calculated that Insurance Innovation is positively correlated because its value lies between 0.827* & 0.847*. In other words we can say that with a slight change in GDP & WPI, there will be a radical change in insurance innovation. Along with it we can also wrap up that our endogenous factor is showing greater dependability to our exogenous factors i.e. GDP & WPI. This inference is drawn on the basis of our calculated value which is 0.847**.

WPI value is 0.847* & 0.972* which shows a positive correlation with, Insurance Innovation & GDP it is termed as highly correlated as the value ranges between 0.75 to 1. This implies that the influencing factors among the variables are enormous. With the help of secondary data we come across the dependency of WPI on the exogenous variables is 0.972**, which depicts that the intensity of dependency is very high.

Finally we calculated the value for correlation between GDP with WPI and Insurance Innovation which is 0.827* & 0.972*, this shows there is a causal relationship between the responsive and explanatory variables i.e. our predictors effectively influencing our measurement variables. The regressed value is 0.972** which portrays that the GDP is exceedingly dependent on the enduring explanatory variables (**Refer Table Five & Six**).

Data Analysis

After analyzing the data, the outcome says the hypothesis set by us at 95% level of significance bear no correlation and dependency among the variables that finally failed. The results are not in support of the assumptions but the research proved that there exists a highly related and dependable on each other. They are so responsive that a slight change in one will affect the other positively. At last we can conclude that

the hypothesis designed by us on the three major contributors of economy have the significant impact on overall performance of economy as well as among each other i.e. we are accepting the alternative hypothesis (H_1) and rejecting the null hypothesis (H_0).

Limitation of Study

Private players started playing in the market from the year 2000.

Future Trends of Insurance Innovation

- Transparency will be crucial.
- More likely products will be designed based on liquid underlying assets.
- US and European financial institutions will be scrutinized more for their financial products—Regulators will focus on : Transparency, Liquidity, Valuation.
- Governance of Institutions designing products will be stressed.
- Product designer should consider behavioral finance more and more.
- Financial e-commerce.

Conclusion

As the Insurance Innovation is increasing there is a increase in WPI and GDP of Indian Economy. Thus through our analysis we concluded that the GDP & WPI are having positive impact in contributing Financial innovation in India. But it is a matter of concern as market is becoming volatile day by day and risks are increasing such conditions favour economic growth and innovation but such a growth is inorganic growth. India being a developing country must follow a long term sustainable development policy. It is only possible when it maintains low inflation rate.

We need to pursue somewhat counter cyclical monetary and fiscal policies with appropriate external sector management, ensuring overall financial stability – price stability, low inflation, low inflation expectations and low inflation volatility. It is only under these conditions, that

investment, innovation and growth can be maintained in a sustainable fashion. We must continue to ensure that the growth momentum is sustained with price stability.

The opportunity zones in financial markets are contracting somewhere and at the same time expanding elsewhere. Both change and the pace of change in the financial markets would be different tomorrow. Continuous exploration of scopes and exploitation of values would demand a brilliant focus on emerging opportunities, competence building, strategies for the leadership position in the opportunity zones and principles centered business practices. Financial innovation is viewed as the “engine” driving the financial system towards its goal for improving the performance of what economists call the “real economy. Therefore, we need to create a culture, which embraces change and moves ahead with an objective to lead.

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ANNEXURE ONE: MULTIPLE CORRELATION ANALYSIS

Multiple Correlation Analysis:

$$R_{1 \cdot 23} = \sqrt{\frac{r_{12}^2 + r_{13}^2 - 2r_{12}r_{13}r_{23}}{1 - r_{23}^2}}$$

$$R_{2 \cdot 13} = \sqrt{\frac{r_{21}^2 + r_{23}^2 - 2r_{12}r_{13}r_{23}}{1 - r_{13}^2}}$$

$$R_{3 \cdot 12} = \sqrt{\frac{r_{31}^2 + r_{32}^2 - 2r_{12}r_{13}r_{23}}{1 - r_{12}^2}}$$

R = Multiple Correlation Coefficient

r = Correlation Coefficient

x = Financial Innovation

y = WPI

z = GDP

Multiple Regression Analysis: The multiple regression analysis two or more independent variables on one dependent variable.

Multiple Regression Analysis:

The regression plane of X_1 on X_2 & X_3 has the equation :

$$X_1 = a_{1.23} + b_{12.3}X_2 + b_{13.2}X_3$$

$$\times X_1 = Na_{1.23} + b_{12.3} \times X_2 + b_{13.2} \times X_3$$

$$\times X_1X_2 = a_{1.23} \times X_2 + b_{12.3} \times X_2^2 + b_{13.2} \times X_2X_3$$

$$\times X_1X_3 = a_{1.23} \times X_3 + b_{12.3} \times X_2X_3 + b_{13.2} \times X_3^2$$

The regression plane of X_2 on X_1 & X_3 has the equation :

$$X_2 = a_{2.13} + b_{21.3}X_1 + b_{23.1}X_3$$

$$\times X_2 = Na_{2.13} + b_{21.3} \times X_1 + b_{23.1} \times X_3$$

$$\times X_1X_2 = a_{2.13} \times X_1 + b_{21.3} \times X_1^2 + b_{23.1} \times X_1X_3$$

$$\times X_2X_3 = a_{2.13} \times X_3 + b_{21.3} \times X_1X_3 + b_{23.1} \times X_3^2$$

The regression plane of X_3 on X_1 & X_2 has the equation :

$$X_3 = a_{3.12} + b_{31.2}X_1 + b_{32.1}X_2$$

$$\times X_3 = Na_{3.12} + b_{31.2} \times X_1 + b_{32.1} \times X_2$$

$$\times X_1X_3 = a_{3.12} \times X_1 + b_{31.2} \times X_1^2 + b_{32.1} \times X_1X_2$$

$$\times X_2X_3 = a_{3.12} \times X_2 + b_{31.2} \times X_1X_2 + b_{32.1} \times X_2^2$$

TABLE ONE: MULTIPLE COORELATIN ANALYSIS

Value of r	Interpretation
If $r = +1$	There exists the perfect positive correlation among the variables.
If $r = -1$	There exists the perfect negative correlation among the variables.
If $r = 0$	There exists no relationship between the variables.
If $+0.75 < r < +1$	There exists the high positive correlation among the variables.
If $-0.75 < r < -1$	There exists the high negative correlation among the variables.
If $+0.5 < r < 0.75$	There exists the moderate positive correlation among the variables.
If $-0.5 < r < -0.75$	There exists the moderate negative correlation among the variables.
If $r < +0.50$	There exists the low positive correlation among the variables.
If $r > -0.50$	There exists the low negative correlation among the variables.

TABLE TWO: CORRELATION AMONG THREE VARIABLES

	X	Y	Z
Mean	70.44	178.89	2805099
S_d	40.09	23.97	964531.18
$r_{x,y}$	1	.847	.827
Significance 2 (Tailed)	-	.004	.006
$r_{y,x}$.847	1	.972
Significance 2 (Tailed)	.004	-	.000
$r_{z,xy}$.827	.972	1
Significance 2 (Tailed)	.006	.000	-

TABLE THREE: REGRESSION AMONG THREE VARIABLES

Variables	R	R ²	Adjusted R ²	Standard Error
Insurance Innovation	.847	.717	.687	24.50
WPI	.972	.944	.936	6.06
GDP	.972	.944	.936	243871.44

TABLE FOUR: INNOVATION IN INSURANCE SECTOR DATA FROM YEAR 1999-2008
(*INSURANCE INNOVATION (X))

YEAR	X	dx = (x-X)	x ²
1999-00	4	-66.44444444	16
2000-01	24	-46.44444444	576
2001-02	56	-14.44444444	3136
2002-03	81	10.55555556	6561
2003-04	86	15.55555556	7396
2004-05	64	-6.444444444	4096
2005-06	56	-14.44444444	3136
2006-07	134	63.55555556	17956
2007-08	129	58.55555556	16641
TOTAL	634	0	59514

**TABLE FIVE: WHOLESALE PRICE INDEX (WPI) DATA FROM YEAR 1999-2008
(*WPI 9Y))**

YEAR	Y	dy = (y-Y)	y ²
1999-00	145.3	-33.58888889	21112.09
2000-01	155.7	-23.18888889	24242.49
2001-02	161.3	-17.58888889	26017.69
2002-03	166.8	-12.08888889	27822.24
2003-04	175.9	-2.988888889	30940.81
2004-05	187.3	8.411111111	35081.29
2005-06	195.6	16.71111111	38259.36
2006-07	206.2	27.31111111	42518.44
2007-08	215.9	37.01111111	46612.81
TOTAL	1610	0.00	292607.22

**TABLE SIX: GROSS DOMESTIC PRODUCT (GDP) DATA FROM YEAR 1999-2008
(*GDP (z))**

YEAR	Z	dz = (z-Z)	z ²	xy	Xz	Yz
1999-00	1786525	-1018574.444	3191671575625.0	581.2	7146100	259582082.5
2000-01	1925017	-880082.4444	3705690450289.0	3736.8	46200408	299725146.9
2001-02	2097726	-707373.4444	4400454371076.0	9032.8	117472656	338363203.8
2002-03	2261415	-543684.4444	5113997802225.0	13510.8	183174615	377204022
2003-04	2538171	-266928.4444	6442312025241.0	15127.4	218282706	446464278.9
2004-05	2877706	72606.55556	8281191822436.0	11987.2	184173184	538994333.8
2005-06	3275670	470570.5556	10730013948900.0	10953.6	183437520	640721052
2006-07	3790063	984963.5556	14364577543969.0	27630.8	507868442	781510990.6
2007-08	4693602	1888502.556	22029899734404.0	27851.1	605474658	1013348672
TOTAL	25245895	0	25221571310029.0	28,432.3	612,620,758.0	1,272,930,754.3

SMALLEST LASER IN THE WORLD

The invention of American researchers is the laser that claims to be the smallest in the world. They managed to build up the laser by squeezing beam into a space that is even tinier than a protein molecule. This latest creation could be a important breakthrough in the field of visual technology, making one step closer to nano lasers, which can be used to investigate and manipulate DNA. In addition, the laser can lead to the formation of super-fast computers and improved telecommunications.

TOUCH SCREEN STEERING WHEEL

A group of researchers composed of representatives from the University of Stuttgart, University of Duisburg-Essen and the German Research Center for Artificial Intelligence managed to come up with a touch screen steering wheel. The creation was officially presented at the Conference on Human Factors in Computing Systems and its main goal is to help the driver control a vehicle easier and safer. different from conventional steering wheels that in the majority of cases divert the driver's attention, the new touch screen steering wheel allows one to control different functionalities while keeping eyes on the road.

ECOWASH

David Stockton is the author of this very original concept called Ecowash that represents an eco-friendly way of washing the dishes. The device could be very helpful when you go outside. This is because it is rather compact but most importantly because it does not require electricity. All that you require to start using the device is a bucket of water and a crackdown liquid. You will also need to do some power work. The whole process is very simple and can be done very rapidly. Inside, on the rotating dish rack you can place up to 4 sets of plates. Then a eccentric needle is used to spin the rack. A release window can be found at the bottom of the device. It allows the user to discharge used water. After washing the dishes and getting rid of water you can start the drying process with the help of centrifugal force.

EMERGING CONCEPTS

- Smallest Laser In The World
- Touch Screen Steering Wheel
- Ecowash
- Nano Tech Tea Bag
- Hot-water Cooling System
- Dry Washing Machine
- 5 Significant Trends For 2011
- Clonezilla
- 4 Risks In Cloud Implementation
- Financial Buzzwords
- Law of 29
- PIIGS
- 4S Web Marketing Mix
- Bullwhip Effect in Supply Chains

NANO TECH TEA BAG

One of the newest inventions developed by researchers from Stellenbosch University in South Africa is a one of a kind “tea bag” that makes use of nanotechnology to clean drinking water, creating it free from contaminants and bacteria. It would be appealing to note that the tea bag is made of the same material that is used to make the actual tea bags. The ingredients of tea bag are nanoscale fibers and grains of carbon. Both fibers and grains of carbon filter water from all hazardous contaminants. In order to purify the water, the user needs to place the tea bag in the neck of a water bottle. The tea bag filters the water when the person drinks from the bottle. One bag can be used to filter up to 1 litre of water and its cost is very nominal.

HOT-WATER COOLING SYSTEM

The IBM has recently announced that it managed to successfully install a supercomputer that is cooled by hot water. It is worth mentioning that the supercomputer, called Aquazar, was mounted at the Swiss Federal Institute of Technology Zurich. IBM's latest creation is a new cooling system that consumes 40 percent less energy compared to air-cooled system used in most machines. In addition, the direct usage of waste heat in the heating system of the building is the same of 85 percent cut in CO₂ emissions. The IBM's latest invention was developed as part of the company's initiative to develop new technologies that would help solve business problems. Although the idea of using warm water for cooling might sound strange, the testing results are quite promising. It was discovered that warm water allows the processors of the supercomputer to work properly well below the highest point of allowed operating temperature. During the high performance LINPACK benchmark testing, the new supercomputer managed to reach a performance of 6 teraflops, with the level of energy efficiency being around 450 megaflops per watt. It also gave back about 9 kilowatts of thermal power to the heating system of the Institute.

DRY WASHING MACHINE

British company Xeros looks onward to surmount the American market with its latest invention, a new washing system able to save a lot of water using nylon beads. The beads tumble wash clothes using 90 percent less water than traditional washers. In addition, the company's latest invention, which is currently in the development stage, requires less detergent. Xeros claims that there would be no need for tumble ventilation and if the homes in the United States would switch to the new system, the emissions of carbon dioxide would be considerably reduced. The result would be as though 5 million vehicles have been removed from the road. The company also says that the new washing machine will save almost water 17 million swimming pool.

5 SIGNIFICANT TRENDS FOR 2011

- 1 **The recession is transformational.** Since late 2008, many companies facing reduced top-line growth have eked out profits with deep cuts. In many cases, those savings have been held aside, awaiting the right moment. Odds are, that moment will come in 2011. For IT shops, business growth could require new technology, but additional IT resources may not be added as quickly. Senior IT leaders should be planning now how to meet the demands of anxious CEOs with smaller staffs and shorter timelines.
- 2 **The spotlight remains on cost-saving technologies.** Given the recession, it's no surprise that virtualization, the head-slappingly obvious money-saver that was hot well before the recession, is even hotter now. A year ago, these technologies were the No. 1 technologies, and they are again the same for 2011, followed by cloud computing, software as a service and, to a lesser degree, business analytics.

Cloud computing holds even more potential for cost savings than virtualization, but is it ready for prime

time? And cost savings might not even be the cloud's main advantage. Its biggest benefit might be the fact that it makes it possible to provision server and storage capacity quickly.

- 3 **Mobile is exploding.** Everyone can see this. But are IT shops focused on the management, support and security challenges that come with mobile computing? A huge percentage of employees are bringing personal quick-access storage devices to work and putting sensitive documents and e-mails on them. And here come tablets. Over 30 new tablets were announced or delivered in 2010, and they're inexpensive enough that a lot of people are buying them.
- 4 **Software is undergoing rapid change.** Take the public-cloud phenomenon and stir in largely Web-based mobile applications, and you'll see the start of a software trend that could transform the way we work. When you connect meaningful enterprise data to tablet computers served via your data center, private cloud or hybrid cloud, you've got a transformational technology. For years we've been trying to unchain knowledge workers from their desks so they can interact with one another and work wherever they go. There is a potential to create near-real-time business communication without us having to work at that full time. The days of large, monolithic, LAN-connected, proprietary enterprise apps are numbered
- 5 **Enterprise 2.0 will run its course.** Crowdsourcing information (the real value of Web 2.0 for the enterprise) is a powerful tool. It's a simple way to help us avoid starting every new undertaking from scratch. It shapes ideas and provides valuable insights. And it's on its way to becoming pervasive. But it's not a technology; it's more like a business strategy. The hype surrounding Web 2.0 technologies will die down, and business

use of these tools won't be thought of as a key trend in 2011.

CLONEZILLA

The Free and Open Source Software for Disk Imaging and Cloning

What is Clonezilla?

You're probably familiar with the popular proprietary commercial package Norton Ghost®. The problem with these kind of software packages is that it takes a lot of time to massively clone systems to many computers. You've probably also heard of Symantec's solution to this problem, Symantec Ghost Corporate Edition® with multicasting. Well, now there is an OpenSource clone system (OCS) solution called Clonezilla with unicasting and multicasting!

Clonezilla, based on DRBL, Partclone and udpcast, allows you to do bare metal backup and recovery. Two types of Clonezilla are available, Clonezilla live and Clonezilla SE (server edition). Clonezilla live is suitable for single machine backup and restore. While Clonezilla SE is for massive deployment, it can clone many (40 plus!) computers simultaneously. Clonezilla saves and restores only used blocks in the harddisk. This increases the clone efficiency. At the NCHC's Classroom C, Clonezilla SE was used to clone 41 computers simultaneously. It took only about 10 minutes to clone a 5.6 GBytes system image to all 41 computers via multicasting!

Features:

- Free (GPL) Software.
- Filesystem supported: (1) ext2, ext3, ext4, reiserfs, reiser4, xfs, jfs of GNU/Linux, (2) FAT, NTFS of MS Windows, (3) HFS+ of Mac OS, (4) UFS of FreeBSD, NetBSD, and OpenBSD, and (5) VMFS of VMWare ESX. Therefore you can clone GNU/Linux, MS windows, Intel-based Mac OS, and FreeBSD, NetBSD, and OpenBSD, no matter it's 32-bit (x86) or 64-bit (x86-64) OS. For these file systems, only used blocks in partition are saved and restored. For

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unsupported file system, sector-to-sector copy is done by dd in Clonezilla.

- LVM2 (LVM version 1 is not) under GNU/Linux is supported.
- Grub (version 1 and version 2) is supported.
- Unattended mode is supported. Almost all steps can be done via commands and options. You can also use a lot of boot parameters to customize your own imaging and cloning.
- Multicast is supported in Clonezilla SE, which is suitable for massively clone. You can also remotely use it to save or restore a bunch of computers if PXE and Wake-on-LAN are supported in your clients.
- The image file can be on local disk, ssh server, samba server, or NFS server.
- Based on Partclone (default), Partimage (optional), ntfsclone (optional), or dd to image or clone a partition. However, Clonezilla, containing some other programs, can save and restore not only partitions, but also a whole disk.
- By using another free software drbl-winroll, which is also developed by us, the hostname, group, and SID of cloned MS windows machine can be automatically changed.

Minimum System Requirements for Clonezilla live:

- X86 or x86-64 processor
- 196 MB of system memory (RAM)
- Boot device, e.g. CD/DVD Drive, USB port, PXE, or hard drive

Limitations:

- The destination partition must be equal or larger than the source one.
- Differential/incremental backup is not implemented yet.

- Online imaging/cloning is not implemented yet. The partition to be imaged or cloned has to be unmounted.
- Software RAID/fake RAID is not supported by default. It does can be done manually only.
- Due to the image format limitation, the image can not be explored or mounted. You can NOT recovery single file from the image. However, you still have workaround to make it, read this.
- Recovery Clonezilla live with multiple CDs or DVDs is not implemented yet. Now all the files have to be in one CD or DVD if you choose to create the recovery iso file.

License:

- Clonezilla itself is licensed under the GNU General Public License (GPL) Version 2. However, to run Clonezilla, a lot of free and open source software, e.g. the Linux kernel, a minimal GNU/Linux OS, are required.

Which Clonezilla Shall I Use?

- Clonezilla Live: Clonezilla live allows you to use CD/DVD or USB flash drive to boot and run Clonezilla (Unicast only)
- Clonezilla SE: Clonezilla SE is included in DRBL, therefore a DRBL server must first be set up in order to use Clonezilla to do massively clone (unicast, broadcast and multicast are supported)

4 RISKS IN CLOUD IMPLEMENTATION

Although cloud offerings are rapidly maturing, the immaturity of cloud service contracting means that many contracts have structural deficits, four risky issues that CIO's and sourcing executives should be aware of when contracting for cloud services.

"Cloud service providers will need to address these structural shortcomings to achieve wider acceptance of their standard contracts and to

benefit from the economies of scale that come with that acceptance,” said Frank Ridder, research vice president at Gartner. “CIO’s and sourcing executives have a duty to understand key areas of risk for their organizations.

“It’s essential that organizations planning to contract for cloud services do a deep risk analysis on the impact and probability of their risks, and they should also plan mitigation for the most critical issues,” said Alexa Bona, research vice president at Gartner. “This might cost additional money, but it is worth the effort. Risk should be continuously evaluated, because contracts can change — sometimes without notification.”

The four risky issues for CIO’s, when contracting for cloud services include:

1 Cloud sourcing contracts are not mature for all markets

When analyzing cloud sourcing contracts, it is often obvious whether the cloud service provider wrote the contract with larger, more mature corporations, or the consumer side of the market, in mind.

For example, there are cloud service contracts from traditional service providers for their private cloud offerings; these tend to include more generally acceptable terms and conditions.

Gartner also sees many cloud-sourcing contracts that lack descriptions of cloud service providers’ responsibilities and do not meet the general legal, regulatory and commercial contracting requirements of most enterprise organizations.

Organizations are advised to carefully assess the risks associated with cloud sourcing contracts. Areas such as data-handling policies and procedures can have a negative impact on the business case (for example, additional backup procedures or a fee for data access after cancellation) potentially creating compliancy issues and cost increases, and indicating specific risk mitigation activities.

2 Contract terms generally favor the vendor

Organizations that successfully outsource, evolve more partnership-style relationships with their vendors. Cloud service contracts do not lend themselves to such partnerships — mainly because of the high degree of contract standardization — where terms are consistent for every customer, and service is typically delivered remotely rather than locally.

An organization needs to understand that it is one of many customers and that customization breaks the model of industrialized service delivery. Cloud service contracts are currently written in very standardized terms, and buying organizations need to be clear about what they can accept and what is negotiable. To manage cloud services contracts successfully, organizations need to manage user expectations.

3 Contracts are opaque and easily changed

Contracts from cloud service providers are not long documents. Certain clauses are not very detailed, as URL links to Web pages detail additional terms and conditions.

These details are often critical to the quality of service and the price (such as SLAs) for uptime or performance, service and support terms, and even the description of the core functionality of the offering.

Clauses that are only fully documented on these Web pages can change over time; often without any prior notice.

Organizations need to ensure that they understand the complete structure of their cloud sourcing contract, including the terms that are detailed outside of the main contract. They need to be sure that these

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terms cannot change for the period of the contract and, ideally, for at least the first renewal term without forewarning.

It is also critical to understand what parts of the contracts can be changed and when the change will take place.

4 Contracts do not have clear service commitments

As the cloud services market matures, increasing numbers of cloud service providers include SLAs in URL documents referenced in their contracts and, in fewer cases, in the contract itself. Usually, the cloud service providers limit their area of responsibility to what is in their own network as they cannot control the public network.

'Things are improving, but service commitments remain vague'. When deciding whether to invest in cloud offerings, buyers should understand what they can do, if the service fails or performs badly. They should understand whether the SLAs are acceptable and if the credit mechanisms will lead to a change in the providers' behavior; if not, they should negotiate terms that meet their requirements - or not engage.

FINANCIAL BUZZWORDS

Cats And Dogs: A term used for speculative stocks that have short or suspicious histories for sales, earnings and dividends. The term originates from the use of "dog" to refer to a poor performing stock.

Dull Market: A market characterized by little activity. It consists of low trading volumes and tight daily trading ranges. There is very little change and action in a dull market. A common psyche in dealing with dull markets is never to sell the stocks. It is believed that the market takes a long breath for a rally.

Fire Sale: A situation in which the prices of securities in the financial markets are considered

to be very low. The market is in bearish mode. It signifies good opportunity to buy but with due caution because all securities are not underpriced.

Affluenza: A social condition of being more and more wealthy. It is the result of the capitalist economy of the US where financial success is considered as the basic parameter of success. It is a symptom of materialist culture characterized by high level of consumerism. Typically akin to the US culture, this social condition has a number of ill-effects such as depression, anxiety and violence.

Boomernomics: An investing strategy that involves buying equities directly related to the spending behavior of baby boomers (people born between 1946 and 1964). It refers to investing in the securities of healthcare, biotech and luxury cars that is those companies which benefit from this age group.

Harvard MBA Indicator: It is a long-term stock market indicator that examines the percentage of Harvard Business School graduates that accept jobs which are highly market volatile such as investment banking, securities sales & trading, private equity, venture capital and leveraged buyouts. If more than 30% of a year's graduating class takes jobs in these areas, the Harvard MBA Indicator gives a sell signal for stocks. On the other hand, if less than 10% of graduates take jobs in this sector, it represents a long-term buy signal for stocks. It is an obscure indicator that is meant to represent long-term signals based on the relative attractiveness of Wall Street jobs. The more graduates that are lured to go there, the more overstuffed Wall Street becomes and the more likely the market is nearing a top. When stock markets are doing poorly, fewer grads want to enter the sector. The Harvard MBA indicator is based on the old market principle that when everyone else trying to get in, its time to sell and exit.

Champagne Stock: A term used to describe a stock whose value has gone up dramatically. A champagne stock is one that gives twice or thrice returns to its investors in a short period.

Champagne stocks can from any sector, industry or company. Some turn in to bubble stocks and cause great loss to their investors as well.

A champagne stock appreciates very fast within a relatively shorter period, creating a huge profit for the company's shareholders. The term is used because investors will celebrate their profits by ordering an expensive bottle of champagne for their good pick.

Chameleon Option: An option that has the ability to change its structure should certain pre-determined terms of the contract be met.

An example of a chameleon option would be a put option that automatically changes into an identical call option after the price of the underlying exceeds a certain price. This is similar to a long or short straddle except investors aren't required to open two positions.

Fallen Angel: In context of fixed securities it is referred to a bond that was once a high rated investment bond but has since been reduced to junk bond status. For shares, it is used for stocks whose prices have drastically fallen from all time high levels.

Loan Shark: A person or entity that charges borrowers interest above the established legal rate permitted by the governing body. Depending on location demographics, lenders typically cannot charge more than 60% interest per annum. A loan shark would be someone who illegally charges interest over the state's legal limit, which could range up to, or even over, 100%. For example, a loan shark would lend Rs20, 000 to a person with the provision that they be repaid Rs40, 000 within 30 days.

Windfall Shares: Shares given for free to insiders of a society, a firm or a company when that same society, firm or company is undergoing the process of demutualization. Windfall shares are often given to promote goodwill and to encourage the demutualization process.

LAW OF 29

According to Law of 29, marketers believe that an average prospect or customer will not turn

into a client until they have viewed their marketing message at least 29 times. The law of 29 believes that a constant, "in your face" approach to marketing is the best way to sell a product or service. Believers of this approach say, that there is a need to stay in touch with the current and prospective clients in order to make them purchase from you as there is so much competition. The law of 29 is the basis behind drip marketing, a direct marketing approach that involves sending numerous promotional messages to prospective clients over a period of time.

Drip marketing requires a plan of action and an effective way to use drip marketing is to consistently do something each month to keep the company's name in front of the current clients and prospective clients so that a steady amount of business comes in the door throughout the year. Drip marketing follows simple principal, small drips of information over a long period. The concept is simplistic but the reasoning is logical. Research shows that people in general have to see a piece of information between 3 and 30 times before it sinks in. Postcards, newsletters, email newsletter, promotional or sales brochures are some of the methods that could be used for drip marketing campaign.

To make the drip marketing campaign effective following steps are followed:

1. **Time Frame** – The marketing has to be carried out over a certain period of time, so due consideration should be paid on the methods to be used in campaigning, about target audience and the number of drips. A length of time should be set; usually a year could be a good starting point. One might see the results before then but planning should be done for a long haul.
2. **Timing**- Each drip should be spaced effectively. The marketing style is not to flood the recipients with a wave of marketing. A balancing should be done to keep the name fresh in the clients mind. Training of employees at this stage is very important so that every one is involved

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and knows what is happening in the allotted time frame.

3. **Type** – Variety is the key to success as no one wants to see the same thing over and over again. Different techniques such as: e-mails, leaflets, newsletters, free products with the company logo/brand on, telephone calls, facebook and twitter messages could be used. Add offers to each drip like discounts and 2 for 1 offer. Anything interesting which stands out from the rest could be used.
4. **Tracking** – Tracking the results of any marketing or advertising campaign is always essential to know which parts have been most effective will help the company with future campaigns and keep the cost down. People are more likely to buy a product or service from someone they can trust and respect than a stranger. The key is to build a relationship with the potential client base.
5. **Current Customer Base**- Drip Marketing is not just about getting new customers. It can equally be used to up-sell to the current customer base especially when a variety of products are offered.
6. **Visibility**- Drip marketing is about being seen. It means exposing the audience to their brand over and over again.

Thus, drip marketing is one form of lead nurturing that can relatively take a cold lead and turn it into a warm or hot lead simply by providing relevant information over a period of time to the recipients that initially raised their hand.

PIIGS

The PIIGS is a term used by some investors to refer to debt-ridden European countries, including Portugal, Italy, Ireland, Greece and Spain. Since the nations use the euro as their currency, they were unable to employ independent monetary policy in order to help battle the economic downturn. The economic troubles of the PIIGS nations reignited debate about the efficacy of a single currency employed among the Eurozone nations.

When the global economic crisis hit, the nations known as the PIIGS were said to be on the verge of collapse. They needed additional funding to continue. Therefore they borrowed more money even though they were already significantly in debt. Of course with their tax revenues down, and their economic strength hit hard by the global economic financial crisis there was no way to pay those debts, and they had to be restructured. Then they went into austerity programs to deeply cut the cost of government. Unfortunately as many economists predicted it didn't work, many of the countries were lent huge amounts of money with repayment schedules that looked to be impossible to pay off. The economic crisis happening in Europe is not only happening there but many other countries that are having significant problems with inflation, deficit spending, and other serious issues.

4S WEB MARKETING MIX

4S Web Marketing Mix consists of scope, site, synergy, system. The 4Ps Marketing Mix framework is a sound tool for traditional / physical marketing management, however applying that framework to virtual (internet) marketing is a poor choice. The role of 4P'S in online environment is imitating now a days by:

- The drastically diminished role of the 4Ps, and
- The lack of any strategic elements in the 4Ps model.

The successful of E-Commerce lies in the integration of the virtual activities into the physical strategy of the company, its marketing plan and its organizational processes.

- **SCOPE** - It includes markets and competitors, customer profiles, effects of the online operation on existing internal processes and identification of the strategic role of the firm's online presence.
- **SITE** – It identifies the operational aspects of the online presence reflecting the character, positioning and market focus of online firms. The corporate web site, is

the main interface between the firm and its customers, and should be designed in a manner that facilitates contact with the target group. The web site must express a virtual experience that encourages customer interaction as well as customer retention.

- **SYNERGY** - Online firms will maximize their market impact by capitalizing on synergies with existing commercial and organizational processes requires:
 - Integration with the Front Office: integration of the firm's virtual activities in the total corporate marketing plan. This is necessary to provide the online presence of the firm the initial support, needed in order to develop as a significant component of the total marketing program.
 - Integration with the Back Office: Emphasizes the fact that a far-reaching integration of virtual activities in the existing organizational processes is a vital condition for meeting the service needs and expectations of online customers. Integration of the online presence with existing organizational processes might mean that some of the traditional operations or procedural routines have to be upgraded or re-designed in order to deliver the proper level of virtual customer service and value.
 - Integration with external parties and company networks: necessary for promotional and logistical activities as well as outsourcing processes that cannot be done internally in a cost efficient manner.
- **SYSTEM** – It provides an outline of technical factors underpinning the secure, safe, cost-efficient and customer-friendly operation of the corporate web site.

Uses of the 4s Web Marketing Mix

1. Designing of new web sites.
2. Evaluating/ upgrading of existing web sites.

3. Especially useful for dealing with Clicks and Mortar (B2C) environments

Advantages of the 4S Web Marketing Mix.

1. It identifies the critical strategic, operational, organizational and technological issues underpinning a successful online presentation.
2. This method argues for an integrative approach on strategic and operational management issues.
3. It is suited for Internet strategy and physical applications in sectors where conditions are changing quickly and rapidly.
4. It highlights the role of marketing managers as strategists (and not only as tacticians).

BULLWHIP EFFECT IN SUPPLY CHAINS

The Bullwhip Effect in Supply Chains is a logistic phenomenon named after the way the amplitude of a whip increases down its length. Customer demand is often and increasingly unstable. Businesses must forecast demand in order to properly position inventory and other resources. Forecasts are traditionally based on statistics, and they are rarely perfectly accurate. Because forecast errors are a given, companies often carry an inventory buffer called "safety stock". Moving up the supply chain from end-consumer to raw materials supplier, each supply chain participant has greater observed variation in demand and thus greater need for safety stock. In periods of rising demand, down-stream participants will increase their orders. In periods of falling demand, orders will fall or stop in order to reduce inventory. The effect is that variations are amplified as one move upstream in the supply chain.

Common symptoms of Bullwhip variations are excessive inventory (shortages of working capital), poor product forecasts, insufficient or excessive capacities, poor customer service due to unavailable products or long backlogs, uncertain

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production planning (i.e., excessive revisions), and high costs for corrections, such as for expedited shipments and overtime. The Bullwhip effect is amplified by separate ownership at different stages of the Supply chain, thereby decreasing the overall profitability of the Supply Chain.

Additional factors contributing to the Bullwhip Effect are:

- Forecast errors and updates
- Lead time variability
- Order batching

- Price fluctuation
- Rationing and shortage gaming, product promotions, inflated orders

Many have felt the frustration of supply chain management in a simulation model developed at MIT's Sloan School of Management called the Beer Game. The simulation is run as a board game in teams playing the roles of retailers, wholesalers, distributors, and brewers of beer. As the backlog for orders increase, players order too much inventory, forcing their teammates into severe backlogs further down the supply chain.

MILESTONES

- 1976-79 Bharti Enterprises founded by Sunil Bharti Mittal. Starts as a small scale manufacturing unit for bicycle components. Diversifies into production of yarn, stainless steel sheets for surgical utensils.
- 1980-84 Bharti Overseas Trading Corporation set up. Bharti imports and markets stainless steel products, brass and plastic products, and zip fasteners etc. Bharti ties up with Suzuki, Japan to import and distribute portable gensets.
- 1985-88 Bharti makes its entry into the telecom sector with Bharti Telecom. Enters into a technical tie-up with Siemens AG of Germany and becomes the first company in India to manufacture electronic push button telephones in Gurgaon.
- 1992 Bharti Cellular Ltd. is born. Bharti forms a consortium with SFR-France, Emtel-Mauritius and MSI-UK, to bid for mobile service provider licenses in Indian metros.
- 1995 Bharti launches Delhi's first GSM mobile services under the Airtel brand.
- 1998 Bharti becomes the first Indian company to offer telecom services in international markets. Launches mobile services in Seychelles. Bharti launches India's first private fixed line service in Indore, Madhya Pradesh.
- 2002 Bharti goes public, completes India's first 100% book building issue and gets listed on the National stock Exchange, Bombay Stock Exchange and the Delhi Stock Exchange on February 18, 2002.
- 2004 Bharti, is the first in the telecom industry, signs a 10 year comprehensive IT outsourcing deal with IBM. Airtel exclusively brings globally acclaimed Blackberry to India.
- 2005 Vodafone picks up 10% equity interest in Bharti for \$1.5 billion, making it the single largest foreign investment in the country.
- 2006 Bharti and Wal-Mart sign Memorandum of Understanding to jointly explore Retail opportunities in India. Bharti becomes the first Indian telecom operator to launch 3G services, starts 3G operations in Seychelles. Bharti and its Associates commit a corpus of Rs 200 crores to Bharti Foundation to provide education to underprivileged children in villages across India.
- 2007 Bharti Televentures rechristened as Bharti Airtel. Bharti becomes the fastest private telecom company in the world to cross the 50 million mark. Enters the league of top 5 mobile companies in the world.
- 2008 Bharti launches its first set of retail stores in Ludhiana under the 'easy day' brand.
- 2009 Bharti Foundation sets up Bharti Centre for Communication in partnership with Indian Institute of Technology, Mumbai. Bharti Airtel crosses the 100 million telecom customers mark.
- 2010 Bharti Airtel enters into a legally binding definitive agreement with Zain Group to acquire Zain Africa.

Bharti Enterprises is one of India's leading business groups with operations in over 21 countries across the globe and interests in telecom, financial services, retail, fresh and processed foods, and real estate.

Bharti Enterprises functions on one underlying philosophy - to create businesses that are transformational and have a deep impact on society.

Bharti started its telecom services business by launching mobile services in Delhi (India) in 1995. Since then there has been no looking back and Bharti Airtel, the group's flagship company, has emerged as one of top telecom companies in the world and is amongst the top five wireless operators in the world.

Through its global telecom operations Bharti group has presence in 21 countries across Asia, Africa and Europe – India, Sri Lanka, Bangladesh, Jersey, Guernsey, Seychelles, Burkina Faso, Chad, Congo Brazzaville, Democratic Republic of Congo, Gabon, Ghana, Kenya, Madagascar, Malawi, Niger, Nigeria, Sierra Leone, Tanzania, Uganda, and Zambia.

Over the past few years, the group has diversified into emerging business areas in the fast expanding Indian economy. With a vision to build India's finest conglomerate by 2020 the group has forayed into the retail sector by opening retail stores in multiple formats – small and medium - as well establishing large scale cash & carry stores to serve institutional customers and other retailers. The group offers a complete portfolio of financial services – life insurance, general insurance and asset management – to customers across India. Bharti also serves customers through its fresh and processed foods business. The group has growing interests in other areas such as telecom software, real estate, training and capacity building, and distribution of telecom/IT products.

What sets Bharti apart from the rest is its ability to forge strong partnerships. Over the years some of biggest names in international business have partnered Bharti. Currently, Singtel, IBM, Ericsson, Nokia Siemens and Alcatel-Lucent are key partners in telecom. Walmart is Bharti's partner

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for its cash & carry venture. Axa Group is the partner for the financial service business and Del Monte Pacific for the processed foods division.

Bharti strongly believes in giving back to the society and through its philanthropic arm the Bharti Foundation it is reaching out to over 30,000 underprivileged children and youth in India.

History

Founded in 1976, by Sunil Bharti Mittal, Bharti has grown from being a manufacturer of bicycle parts to one of the largest and most respected business groups in India. Sunil Bharti Mittal's father was a Member of Parliament but Sunil did not follow his father's footsteps. After graduating from Punjab University in 1970s, he set up a small bicycle business in Ludhiana in partnership with his friend. By 1979, Sunil Mittal realized that his ambitions could not be fulfilled in Ludhiana, so he moved out to Mumbai from Ludhiana.

He spent a few years in Mumbai and in 1982, Sunil Mittal started a full-fledged business selling portable generators imported from Japan. This gave him a chance to acquaint himself with the nitty-gritty's of marketing and advertising. His business was running smoothly but later on the government banned the import of generators as two Indian companies were awarded licenses to manufacture generators locally.

In 1986, Sunil Bharti Mittal incorporated Bharti Telecom Limited (BTL) and entered into a technical tie up with Siemens AG of Germany for manufacture of electronic push button phones. Gradually he expanded his business and by early 1990s, Sunil Mittal was making fax machines, cordless phones and other telecom gear.

In 1992, when the Indian government was awarding licenses for mobile phone services for the first time, Sunil Mittal clinched Delhi cellular license in collaboration with French telecom group Vivendi. In 1995, Sunil Mittal founded

Bharti Cellular Limited (BCL) to offer cellular services under the brand name AirTel. Soon, Bharti became the first telecom company to cross the 2-million mobile subscriber mark. Bharti Cellular Limited also rolled out India's first private national as well as international long-distance service under the brand name IndiaOne. In 2001, BCL entered into a joint venture with Singapore Telecom International for a \$650-million submarine cable project, India's first ever undersea cable link connecting Chennai in India and Singapore. Today, Sunil Mittal runs a successful empire with a market capitalization of approximately \$ 2 billion and employing over 5,000 people.

Vision

By 2020 Bharti Enterprises plans to build India's finest conglomerate by:

- Always empowering and backing people.
- Being loved and admired by customers and respected by partners.
- Transforming millions of lives and making a positive impact on society.
- Being brave and unbounded in realizing its dreams.

Values

Empowerment: The opinions and decisions of others are respected. People are encouraged and backed to do their best.

Entrepreneurship: At Bharti Enterprises they strive to change the status quo. They innovate with new ideas and energise with a strong passion and entrepreneurial spirit.

Transparency: They believe that they must work with honesty, trust and the innate desire to do good.

Impact: They are driven by the desire to create a meaningful difference in society.

Flexibility: They are ever willing to learn and adapt to the environment, partners and the customers' evolving needs.

Management

Sunil Bharti Mittal



Chairman & Group CEO

Sunil Bharti Mittal is the Founder, Chairman and Group CEO of Bharti Enterprises. He started his career at 18 after graduating from Punjab University in India in 1976 and founded Bharti. Today he heads a successful enterprise which employs over 38,000 people.

Bharti Airtel, a group company of Bharti Enterprises, is among the leading global telecom services providers with operations in Asia and Africa with an aggregate of over 218 million customers as of March 2011. Bharti has joint ventures with several global leaders; Singtel, Wal-Mart, AXA and Del Monte. Bharti Airtel, the flagship group company, has a market capitalization of over US\$ 30 billion.

Mr. Sunil Bharti Mittal has been recognized with the Padma Bhushan, one of India's highest civilian awards. He has also been conferred the Lal Bahadur Shastri National Award for 2009. He is a member of the Prime Minister's Council on Trade & Industry and serves on its Sub-Committee on Promoting Financial Inclusion. He served as the President of the Confederation of Indian Industry (CII), the premier industry body in India (2007-08).

Mr. Mittal has been awarded the Global Economy Prize 2009 by The Kiel Institute, Germany. The US-India Business Council has also honored him with 'Global Vision' Award 2008. He has received the GSM Association Chairman's Award for 2008. In 2006, he was chosen Asia Businessman of the Year by Fortune and Asia Pacific CEO of the Year by Frost & Sullivan. Mr. Sunil Mittal has been named Business Leader of the Year by several important media houses,

including The Economic Times, Business Standard, and NDTV. He was the Ernst & Young Entrepreneur of the Year in 2004. He is also a member of the Academy of Distinguished Entrepreneurs, Babson College, Wellesley, Massachusetts.

Mr. Sunil Mittal was Co-chairman of the World Economic Forum at Davos in 2007 and is a member of its International Business Council. He is a member of several premier international bodies – Board of Trustees of the Carnegie Endowment for International Peace and the Leadership Council of The Climate Group. Mr. Sunil Mittal is also on the Telecom Board of the International Telecommunication Union (ITU), the leading UN Agency for Information and Communication Technology. He is a Commissioner of the Broadband Commission at ITU. He is a member of several business forums including the India-US CEO Forum, India-UK CEO Forum, India-Italy CEO Forum, India- Japan CEO Forum and India- Sri Lanka CEO Forums.

He is associated with several world-class academic institutions - member of the Board of Governors of Indian Institute of Management Ahmadabad (IIM); member of the Executive Board of the Indian School of Business; member of the Governing Body of London Business School; member of the Dean's Advisory Board of Harvard Business School; member of the Cambridge India Partnership Advisory Board.

Mr. Sunil Bharti Mittal believes that a responsible corporate has a duty to give back to the community in which it operates. This belief has resulted in Bharti Foundation, which is operating 242 primary schools and 5 Senior Secondary Schools catering to over 30,000 under-privileged children in rural India. Sunil was ranked among the Top 25 Philanthropists in the World in 2009 by the Barron's Magazine.

He has been conferred with the degree of Doctor of Laws (Honoris Causa) by the University of Leeds, UK and the degree of Doctor of Science (Honoris Causa) by the Govind Ballabh Pant University of Agriculture & Technology. He is an Honorary Fellow of The Institution of Electronics and Telecommunication Engineers. He is an alumnus of Harvard Business School, USA.

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Rakesh Bharti Mittal



Vice Chairman & MD

Rakesh Bharti Mittal is Vice-Chairman and Managing Director at Bharti Enterprises. He is the Chairman of Bharti AXA Life Insurance, Bharti AXA General Insurance, FieldFresh Foods, Comviva Technologies, Centum Learning and Beetel Teletech. Rakesh is also a Director on the Board of Bharti Airtel.

Rajan Bharti Mittal



Vice Chairman & MD

Rajan joined Bharti Enterprises after graduating from the Punjab University. An alumnus of Harvard Business School, he is actively involved in overseeing the activities of the group at the corporate level. With his rich experience in marketing function, he is also involved in many of the new business ventures of the group.

Flagship Company

Bharti Airtel

Bharti Airtel Limited is a leading emerging market telecom services provider with operations in 19 countries across Asia and Africa. The company is structured into four strategic business units - Mobile, Telemedia, Enterprise and Digital TV. The

mobile business offers services across 19 countries in Asia and Africa.



The Telemedia business provides broadband, IPTV and telephone services across India. The Enterprise business provides end-to-end telecom solutions to corporate customers and national and international long distance services to carriers. The Digital TV business provides DTH services across India. All these services are provided under the Airtel brand.

Other Strategic Business Units

Bharti Infratel Limited

Bharti Infratel Limited is amongst India's leading telecom passive infrastructure service providers. The company deploys, owns and manages telecom towers and communication structures, for various mobile operators across 18 states of India. It has a vast footprint of over 30,000+ towers and holds a 42% stake in Indus Towers Ltd - a Joint Venture between Bharti Infratel, Vodafone & Idea Cellular – that has the distinction of being the world's largest tower company.



Bharti Infratel has not only pioneered the passive infrastructure space in the Indian telecom sector, but has also continued to lead the industry in developing and providing innovative solutions and setting service delivery benchmarks.

Bharti Realty Limited



Bharti Realty Limited is a young, vibrant and dynamic realty company with expanding interests in commercial, retail and residential real estate. It has grown from strength to strength, constructing and managing over ten top of the line facilities for Bharti group companies and third party clients. Spurred by its accomplished success and acquired expertise, Bharti Realty Limited has now forayed into developing quality commercial real estate in the central business district (CBD) areas of metropolitan cities, retail real estate in the up-market localities of metropolitan cities and in a few prominent cities of Punjab, and high end residential real estate in the Delhi NCR region, Mumbai and Bangalore.

Beitel Teletech Limited

Beitel is a leading global technology brand which offers a wide range of innovative products in the mobile phones, IT peripherals and fixed line telephone segments. Leveraging its consistent performance, distribution and marketing capabilities Beitel as a brand has achieved a leading market share in the telecom and allied product segments.



With powerful distribution and marketing capabilities, Beitel distributes a host of iconic brands like Blackberry, Apple, Avaya, Polycom,

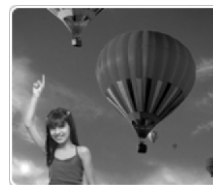
Samsung, Sanyo, Panasonic, Transcend, Iomega, Aastra Telecom, RAD Data Comm, Actelis and Strontium. Its products and solutions are present worldwide, spanning 35 countries in 5 continents.

Comviva

Comviva is the global leader in providing mobile solutions beyond VAS. With an extensive portfolio of solutions spanning VAS infrastructure, application delivery platforms and customer-facing applications, Comviva enables mobile service providers to enrich mobile users' lives, whilst rationalizing costs, accelerating revenue growth and enhancing customer lifetime value. Comviva's solutions are deployed by service providers in over 85 countries and offer services to more than 650 million mobile subscribers globally.

Jersey and Guernsey

Jersey Airtel and Guernsey Airtel are subsidiaries of Bharti group and offer mobile services on the islands of Jersey and Guernsey respectively in the Channel Islands (Europe). All services are offered under the Airtel-Vodafone brand under a partnership to bring a range of Vodafone global products together with other exciting services from Bharti to customers in Jersey and Guernsey.



Centum Learning Limited

Centum Learning Limited provides end-to-end learning and skill-building solutions that enhance business performance of Bharti Group and several large corporates. Centum Learning has received the Gold Award for "Excellence in Training" at the World HRD Congress, 2010 and has been adjudged as one of the 'Top 15 Emerging Leaders in Training Outsourcing' 2009 Worldwide. Centum Learning provides industry oriented employability programmes through a network of 130 Centum Learning Centers spread

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across 90 cities. It has also launched a new education initiative, Centum U-Institute of Management & Creative Studies which offers UG and PG programmes in association with world renowned institutions.



Bharti Walmart

Bharti Walmart is a B2B joint venture between Bharti Enterprises and Walmart for wholesale cash & carry and back-end supply chain management operations in India to serve small retailers, manufacturers, institutions and farmers. The Company operates Cash & Carry stores under the Best Price Modern Wholesale brand. A typical cash-and-carry store stands between 50,000 and 100,000 square feet and sells a wide range of fresh, frozen and chilled foods, fruits and vegetables, dry groceries, personal and home care products, hotel and restaurant supplies, clothing, office supplies and other general merchandise items.

Bharti Retail



Bharti Retail is a wholly owned subsidiary of Bharti Enterprises. The Company operates easyday neighborhood stores and compact hypermarket stores called easyday Market. Bharti Retail provides consumers a wide range of good quality products at affordable prices. Easyday stores are a one stop shop that cater to every family's day-to-day needs. Merchandise at

easyday Market stores include apparels, home furnishings, appliances, mobile phones, meat shop, general merchandise, fruits and vegetables among others.

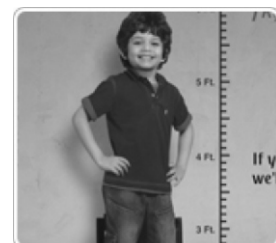
Bharti AXA Life Insurance



Bharti AXA Life Insurance is a joint venture between Bharti and AXA Group. The company launched national operations in December 2006. Today, Bharti AXA Life has a national footprint of distributors trained to provide quality financial advice and insurance solutions to the large Indian customer base. Bharti AXA Life offers a range of innovative products and services that cater to specific insurance and wealth management needs of customers.

Bharti AXA General Insurance

Bharti AXA General Insurance is a joint venture between Bharti Group and AXA Group. The company is one of the fastest growing in the general insurance segment and is the first in the industry to receive dual certifications of ISO 9001:2008 & 27001:2005 within a year of launching operations. The company offers an extensive product range for retail, rural and commercial clients with cashless facilities in over 4000 hospitals and 1600 garages as well as 24/7 multi-modal claims registration.



Bharti AXA Investment Managers

Bharti AXA Investment Managers Private Limited is a joint venture between Bharti and the AXA Group. With a presence in more than 34 locations across the country within one year of the launch, Bharti AXA Investment Managers boasts one of the largest footprints for any AMC in the country during launch. This indicates the retail focus of AMC. With best practices brought in from world leaders in financial protection, Bharti AXA Investment Managers aim to be an aggressive player in the Indian Asset Management Industry.

Indus Towers

Indus Towers, a JV between Vodafone Essar (42%), Bharti Group (42%) and Aditya Birla Telecom Limited (16%) is India's leading mobile towers company. The company, which operates in 16 telecom circles across India, provides services to all telecom operators and other wireless service providers such as broadcasters and broadband service providers on non-discriminatory basis.



FieldFresh Foods Pvt. Ltd

FieldFresh Foods Pvt. Ltd. is a joint venture company between Bharti Enterprises and Del Monte Pacific Ltd. The company offers branded FieldFresh fruits & vegetables across India and international markets, including Europe and the Middle East. The company produces markets and distributes farm fresh products.

Products and Services

Mobile services

Bharti airtel offers GSM mobile services in all the 23-telecom circles of India and is the largest mobile service provider in the country, based on the number of customers.

Telemedia Service

The group offers high-speed broadband internet with the best in class network 87 cities.

Enterprise Services

Enterprise Services provides a broad portfolio of services to large Enterprise and Carrier customers. This division comprises of the Carrier and Corporate business unit. Enterprise Services is regarded as the trusted communications partner to India's leading organizations, helping them to meet the challenges of growth.

Corporate Services

This business unit delivers end to end telecom solutions to India's large corporates. It serves as the single point of contact for all telecommunication needs for corporate customers in India by providing full suite of communication services across data, voice and managed services. It specializes in providing customized solutions to address unique requirements of different industry verticals; BFSI, IT, ITeS, Manufacturing and distribution, media, education, telecom, Government and PSUs and retail among others. Backed by the alliances with leading technology companies worldwide and state of the art infrastructure, it offers complete range of telecom solutions. These solutions enable corporates to network their offices within India and across the globe, provide them infrastructure to run business critical applications and provide them means to connect with their customers, vendors and employees.

Carrier Business

Carrier business unit provides long distance wholesale voice and data services to carrier customers as well as to other business units of Airtel. It also offers virtual calling card services in the overseas markets.

The business unit owns a state of the art national and international long distance network infrastructure enabling it to provide connectivity services both within India and connecting India to the world. The national long distance infrastructure comprises of 83,389 Rkms of

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optical fibre, over 1,500 MPLS and SDH POPs and over 1,000 POIs with the local exchanges, providing a pan India reach.

The international infrastructure includes ownership of the i2i submarine cable system connecting Chennai to Singapore, consortium ownership of the SMW4 submarine cable system and investment in capacities across a number of diverse submarine cable systems across transatlantic and transpacific routes. In recent past it has announced investments in new cable systems such as Asia America Gateway (AAG), India Middle East and Western Europe (IMEWE), Unity North, & EIG (Europe India Gateway).

Digital TV services

Airtel Digital TV is the brand name for Bharti Airtel's DTH service in India. It uses MPEG-4 digital compression with DVB-S2 technology. Airtel digital TV service was launched on 8 October 2008. Its main competitors are cable television and other DTH service providers - Reliance Big TV, DD Direct+, Dish TV, Tata Sky, Sun Direct, and Videocon D2H.

Social Responsibility

At Bharti Enterprises, there is absolute belief in quality education being the most important tool for social and economic development in India. Thus, Bharti Foundation was set up in 2000 as the philanthropic wing of the Bharti Group of Companies to bridge the existing education divide and make quality education accessible to all underprivileged children across rural India. The Foundation aims to help underprivileged children and young people of our country realize their potential.

All educational programs initiated by Bharti Foundation involve close partnerships with the government, policy makers, local communities and the general public. These education programs aim to make a difference in the lives of thousands of underprivileged children and youth, allowing them to become employable citizens of the future and contribute to the economic growth of the community.

Bharti Foundation implements education programs in primary and higher education to help both holistic and academic development

of underprivileged children and youth across the rural pockets of India. The primary school program is designed to teach students to explore, question, reason and communicate effectively. This helps them connect with their own community and stay rooted to their local culture. The senior school program train students in vocational skills to help them emerge as employable citizens and contribute to community development.

Financial Performance

Highlights for the fourth quarter ended March 31, 2011:

- Overall customer base stands at 220.9 million, across 19 countries
- Total minutes on network at 240.2 billion; up by 6% (13 billion) over Q3 FY11
- Total revenues at ₹16,265 crore, up by 51.3% Year-on-year
- Consolidated EBITDA of ₹5,450 crore, up by 33.5% Year-on-year
- India & South Asia revenue growth at 12.7% Year-on-year
- Africa revenues at \$ 924 million; continues growth trend with improvement in margins.

Highlights for the full year ended March 31, 2011:

- Successful African acquisition and integration of operations
- Successful launch of the new airtel brand across 19 countries
- Total revenues at ₹59,467 crore, up by 42.1% Year-on-year
- India & South Asia revenue growth accelerates at 11.0% Year-on-year. Full year revenue crosses \$ 10 billion

The consolidated total revenues for the fourth quarter ended March 31, 2011 of ₹16,265 crore grew by 51.3% over last year. Africa continued its upward trend with revenues of \$ 924 million (Q3 FY11: \$ 911 million). India & South Asia sustained double digit revenue growth (Y-o-Y 12.7%). Consolidated EBITDA margin for the

quarter at 33.5% improved from 31.6% in Q3 FY11. The net income for Q4 FY 11 was at ₹1,401 crore, improved by 7.5% from ₹1,303 crore in Q3 FY11.

The consolidated total revenues for the full year ended March 31, 2011 of ₹59,467 crore grew by 42.1% Year-on-year lifted by the African operations. India and South Asia revenues grew by 11.0% in an intensely competitive market.

The consolidated EBITDA margin for the year was at 33.6% declined by 6.5% over the previous year. This is equally attributable to pricing pressure in India and South Asia and the lower margins in African operations acquired during the year. The net income at ₹6,047 crore declined by 32.6% from ₹8,977 crore in the previous year due to increase in net interest outgo (₹1,480 crore), forex restatement losses (₹683 crore), re-branding expenses (₹340 crore) and increase in spectrum charges in India (₹265 crore). The Consolidated Operating Free Cash Flow for the full year was healthy at ₹5,704 crore (\$ 1.3 billion). The Net Debt – Equity ratio as at March 31, 2011 stands at 1.23 and Net Debt – EBITDA ratio is 2.83. **(Refer Exhibit- One)**

Latest Awards & Recognition

Corporate Citizen of the Year Award 2010 The Economic Times Awards for Corporate Excellence

Asian Philanthropist of the Year Awards 2010 Asian Awards

Global Telecom Leader Award 2010 Voice & Data

Business Innovator of the Year 2010 NDTV Profit Business Leadership Awards

Lal Bahadur Shastri National Award 2009 Lal Bahadur Shastri Institute of Management, New Delhi

Global Economy Prize 2009 Kiel Institute, Germany

Business Leadership Award 2009 Madras Management Association

GSMA Chairman's Award, 2008 GSM Association

Global Vision Award 2008 U.S.-India Business Council (USIBC)

Conclusion

Bharti Enterprises in the able guidance of Mr. Sunil Bharti Mittal has emerged as one of the most rapidly growing and promising companies on the foray of Indian corporate scene. This is one of the well diversified groups which has made its presence felt in the international markets also. Bharti Airtel since its inception has been at the forefront of technology and has steered the course of the telecom sector in the country with its world class products and services. The businesses at Bharti Airtel have been structured into three individual strategic business units (SBU's) - Mobile Services, Airtel Telemedia Services & Enterprise Services. This can be stated with utmost certainty that in Indian corporate sector Bharti Enterprises is a very prominent and one of the most promising name to watch out for.

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EXHIBIT ONE : BALANCE SHEET OF BHARTI AIRTEL

BSE Code	5 324 54	Dividend Yield (%)	0.25	EPS (Rs.)	19.01
ISIN Demat	INE397D01024	Market Cap (Rs Mn)	1541417.47	Face Value (Rs.)	5
Book Value (Rs.)	1 19.19	P/E	21.35	Volume	207402.00
(Rs. in Million)					
Particulars	Mar 2011	Mar 2010	Mar 2009	Mar 2008	Mar 2007
SOURCES OF FUNDS					
Share Capital	18988.00	18988.00	18982.40	18979.07	18959.34
Share warrants & Outstandings	2786.00	1861.00	1162.17	576.34	300.00
Total Reserve	419342.00	346523.00	256295.07	182859.53	95173.34
Shareholder's Funds	441116.00	367372.00	276439.64	202414.93	114432.69
Secured Loans	171.00	394.00	517.30	524.24	2664.48
Unsecured Loans	118804.00	49995.00	76619.17	65179.17	50443.58
Total Debts	118975.00	50389.00	77136.47	65703.42	53108.05
Total Liabilities	560091.00	417761.00	353576.12	268118.35	167540.74
APPLICATION OF FUNDS :					
Gross Block	614375.00	442125.00	372667.02	281156.52	265099.31
Less: Accumulated Depreciation	207367.00	161875.00	122533.44	90850.04	72042.97
Less: Impairment of Assets	0	0	0	0	0
Net Block	407008.00	280250.00	250133.59	190306.48	193056.34
Lease Adjustment A/c	0	0	0	0	0
Capital Work in Progress	64976.00	15947.00	25666.69	27510.79	23758.16
Pre-operative Expenses pending	0	0	0	0	0
Assets in transit	0	0	0	0	0
Investments	118130.00	157733.00	117777.58	109528.53	7058.18
Current Assets, Loans & Advances					
Inventories	344.00	272.00	621.51	568.61	478.15
Sundry Debtors	23758.00	21050.00	25500.49	27764.57	18732.96
Cash and Bank	1338.00	8167.00	22516.03	5029.39	7804.61
Other Current Assets	1015.00	664.00	1197.13	997.27	41.69
Loans and Advances	167296.00	110090.00	71494.72	45760.20	25830.80
Total Current Assets	193751.00	140243.00	121329.88	80120.04	52888.20
Less : Current Liabilities and Provisions					
Current Liabilities	147963.00	122848.00	131179.82	119090.69	94294.23
Provisions	70535.00	53531.00	33423.78	19620.14	12585.91
Total Current Liabilities	218498.00	176379.00	164603.60	138710.83	106880.14
Net Current Assets	-24747.00	-36136.00	-43273.72	-58590.79	-53991.95
Miscellaneous Expenses not written off	0	0	0.87	2.03	26.63
Deferred Tax Assets / Liabilities	-5276.00	-33.00	3271.10	-638.68	-2366.62
Total Assets	560091.00	417761.00	353576.12	268118.35	167540.74
Contingent Liabilities	500370.00	53964.00	30835.11	21488.71	16151.70

THE IDEA OF JUSTICE

DR. AMARTYA SEN
PENGUIN BOOKS LTD, LONDON, ENGLAND
PAGE 469

Probe

Does anything move us anymore, people's plight, rising corruption, social and financial inequality, political and legal injustice, the mass destruction by handful of people for their personal gain in form of genocides, terrorist attacks, or the rising disparity between the people related to opportunities offered by the governments and society, resources distribution, people's unheard voices in the functioning of the policies of the government or delay and unfair justice or we have simply become defunct? With these issues gaining ground, the people have started questioning the systems, ***The Idea of Justice*** is a book by Nobel Laureate Amartya Sen covering these issues. People coming on streets everyday in all the parts of world, world economies crumbling, food inflation reaching its all time high, changing political ideologies. There is a growing apprehension among people regarding their present and future.

The book has been described by the newspaper *The Economist* as "commanding summation of Mr Sen's own work on economic reasoning and on the elements and measurement of human well-being." Sen's book is principally a critique and revision of John Rawls' basic ideas in *A Theory of Justice*. Mr. Sen was a student of Rawls and the book is dedicated to his memory. *The Idea of Justice* is an essential read for the civil society especially in India who has become disillusioned with the large scams being unearthed everyday and wants a reframing of constitutional policies to bring everybody concerned under the scanner. Sen has also become the philosopher-economist of choice for the new wave of politicians focused on the development of the society as they set about revamping their parties in the wake of rising mistrust among people about their intentions and people's lack of interest in the democratic system of the country.

The book mainly focuses on the pitfalls of the American economy. The "capabilities approach", coined by Mr. Sen in his previous work is discussed at length in the book, it facilitates in explaining some of the shortcomings of the various societal projects undertaken by the past governments in States and points towards a more comprehensive understanding of various measures to tackle increasing deprivation and inequality in the country. According to him instead of focusing on raising income level of people, the government should focus on strengthening the "capability" of the people i.e. their innate abilities,

and opportunities offered to them by the government so that they are able to achieve their goals in life. A person's "capability" is impaired not only by poverty but also by disability, discrimination by system or society or illiteracy thus the focus should be more on educational and non profit organisations.

The book is a tribute to the late twentieth-century American liberal philosopher John Rawls. But Sen has also criticized Rawls's assumption that justice is a unique set of principles that rational people would opt from a pseudo initial position that ensures objectivity. Sen believes that Rawls's work can be taken for academic discussions like it is being discussed in various universities but to assume that same set of principles are applicable in all situations does not hold much of ground in real life. It has very few probabilities to help the policy makers in policy formulation. Rawls believes that once the positions have been selected all that remains is to set the right institutions in place. Disagreements about the scope of basic liberties and the allocation of resources in the society will then be settled by applying the theory, which is more of a legal, rather than political process but the societal development is the government's responsibility not of the judiciary system.

It is very difficult to predict how any society could operate, but Sen's objection is not to the lack of realism in Rawls's theory. It is the very idea of perfect justice given by Rawls that appears unrealistic to him. The reasons why society may be unjust are many and various; there cannot be a set of guidelines about how to run the society that will be acceptable to all. A just society will accord its members a range of basic liberties but also the capabilities needed to make use of them.

About the Author

The Nobel Laureate Dr. Amartya Sen was born in Dhaka, the capital of Bangladesh in 1933. Mr. Sen did much of his schooling from Shantiniketan and his college from Presidency College, Calcutta and Trinity College, Cambridge. He had the pleasure of interacting very closely with Tagore the poet and founder of Shantiniketan. Tagore had a deep impact on Sen's upbringing and helped him develop a keen sense of understanding regarding India's cultural, analytical & scientific heritage. But the partition of 1941 and the Bengal famine in 1943 had a lasting impression on Sen's psyche who encountered injustices, fragmentation and deep rooted poverty existing in the society for the first time.

Probe

Presidency College led him to develop a keen interest in economics cemented by his graduation in Trinity College where he was able to encounter various schools of economics and thinkers with profound and diversified knowledge. Dr. Sen has a vast teaching experience spread in various parts of the world like Presidency' College and Delhi University, India Trinity College and London School of Economics, Oxford University and Harvard University.

He has written multiple papers and books on economics, deprivation, social justice and means to equality. His many books include 'Development as Freedom', Rationality and Freedom, The Argumentative Indian and Identity and Violence.

About the Book

The eminent professor and Nobel laureate Amartya Sen has chosen the title of the book very carefully, which sounds uninteresting at first but combines two opposing ideas of political philosophy and economics in a state of no change. Half the implication is indeed that it is possible to spend too much time on justice-as-a-mere-idea. But the other half is an assertion that justice-the-idea could be restructured to work better as a basis for "practical reasoning", such that it might improve the world, as evident through the uprooting of dictatorship for democracy in Egypt. And, his references are not limited to western politics, being an Indian he borrows a lot from classical Indian thought, and tries to destroy the unfair opinion that democracy, if understood broadly as government by public reasoning, is an exclusively western ideology.

In the book Amartya Sen explores the possibilities in which, and the degree to which, justice is a matter of reason, and of various kinds of reason. It is in the nature of reason, says Sen that it does not allow all questions to be settled from first principles; not everything is in principle resolvable; and different people consider different positions as fair. But these pluralities are not a constraint. Why this is so, and how can we presume about justice in a world where one belief is no longer influential. Sen's work is based not in perfect justice, but what can be made to work practically, in the real world. According to him a philosophy of justice should require the consensus not just of the society which is making the laws, but of relevant powers also.

Mr Sen's writing is filled with dry amusement, a feel for yesteryears and a relaxed cosmopolitanism. He

follows the principle that the values in running are of global, not purely Western, import. Earlier thinkers he cites on justice and toleration come less from fourth-century Athens or 17th-century England than from India, where he was born 75 years ago. Growing up in Bengal, he had a first hand experience about poverty and discrimination, not from books as observed in other thinkers.

Two themes predominate the book, economic rationality and social injustice. But Mr Sen treats them alike. He can, when he wants, theorize the principle like Rawls at any time. But he firmly believes that theory, to be of any use for people, must be based on its practical applicability. According to him modern theorists have drifted too far from the actual world. Sen invents a wholly new meaning for the two Sanskrit words- niti (policy/ethics/ counsel) and nyaya (justice/ law/ epistemological criterion for valid inference) whereby niti involves designing good institutions, working out feasible, consistent and efficient means of enforcing laws or policies. And Nyaya, Sen says it means actual realized Justice.

According to Amartya Sen, "Justice is a complex idea (I was not surprised that it took me 496 pages to discuss it), but it is very important to understand that justice has much to do with everyone being treated fairly. Even though that connection has been well discussed by the leading political philosopher of our time, John Rawls, I have argued that he neglects a couple of important connections. One neglect is the central recognition that a theory of justice has to be deeply concerned with systematic assessment of how to reduce injustice in the world, rather than only with the identification of what a hypothetical "perfectly just society" would look like.

There may be no agreement on the shape of perfect justice (and also perfect justice will hardly be achievable even if people did agree about what would be immaculately just), but we can still have reasoned agreement on many removable cases of manifest injustice, for example, slavery, or subjugation of women, or widespread hunger and deprivation, or the lack of schooling of children, or absence of available and affordable health care. Second, analysis of justice has to pay attention to the lives that people are actually able to lead, rather than exclusively concentrating only on the nature of "just institutions". In India, as anywhere else, we have to concentrate on removing injustices that are identifiable and that can be remedied."

“The Idea of Justice” is a pleasure to read, though perhaps not one to be consumed at a single sitting. But as it happens with all thinkers every claim Mr Sen makes will be contradicted by someone. Right-wingers who follow Friedrich Hayek or James Buchanan will treat “social justice” and “social choice” as only words. But Mr Sen wants to humanise canons of “maximising” rationality; behavioural economists.

Rawlsian supporters might come out in defence of their hero. Nobody with sound base of economics and social justice, however, can reasonably complain any longer that they do not see how the puzzle of Mr Sen’s grand jigsaw fits together.

Contrary to what people believe he draws heavily from his hero Adam Smith: not the Smith of free-market legend, but the father of political economy who had a deep understanding of the force of moral constraint and the value of sociability. To encapsulate the alteration in attitude that Mr Sen has sought to bring about, ethics and economics are to be seen as Smith saw them: not two subjects, but one.

Amartya ends, suitably, with democracy. It can take many institutional forms, he says. But none can succeed without free dialogue about values and principles. To that essential element in public reason, as he calls it, “The Idea of Justice” is a contribution of the highest order.

The book is divided in four segments for the convenience of the reader – The Demands of Justice, Forms of Reasoning, Materials of Justice and Public Reasoning and Democracy.

In **the Demands of Justice** he critically evaluates the various views of people like Akbar, Adam Smith and Rawls on humanity, social and political justice and gives their basic rationale behind their beliefs and principles and his interpretation of their views.

In **Forms of Reasoning** he stresses on the need to transcend the limitation of our positional perspectives

in moral & political philosophy, and in jurisprudence. Liberation from positional sequestering may not always be easy, but it is a challenge that ethical, political & legal thinking has to take on board.

In **Materials of Justice** he stresses on the nature of lives as more important criteria for nayaya even though the focus has been more on readily produced statistics like GDP and GNP. According to him in assessing our lives we assess not only the kind of life we lead but also the freedom we have in choosing between different styles of lives.

In **Public Reasoning and Democracy** Mr Sen talks about the presumption of the people that Democracy is a western concept with rest of the world having no notion about it. According to him the answer of all the problems in today’s world is not on imposing democracy on countries in the non-western world.

Conclusion

It is a must read for all the people and specially Indians who as citizens are going through a democratic confusion. With increasing inequality, rising taxes, corruption, and failure of the systems the citizens are feeling cheated and unheard. The author has tried to explain the intricacies of economics and political philosophies with the help of well woven stories so that the reader does not feel overwhelmed by the jargons. It gives a very interesting insight into the mind of the Nobel laureate and how passionately he feels about the inequality and injustice in the world. He has deep admiration for Rawls but his hero is Adam Smith whose philosophy that the same rule cannot be applied in all situations and all people is something he reaffirms wholeheartedly. Mr. Sen’s interpretation of various thinkers which ranges from traditional thinkers like Karl Marx to prominent strategist like Kautilya and pioneers like Rawls and his rich experience makes the book a rare piece of intellect. Nowhere will you be able to find such vast interpretation of society from such illustrious personalities and Sen’s rationale proves to be the icing on the cake.

Data management is the process of gathering and managing data as a resource in an established systematic fashion that enables one to answer stated questions, test hypotheses, and evaluate outcomes. It is common to all fields of work including physical and social sciences, commerce, arts, humanities, business, etc. In this way the book 'Beautiful Data' covers every aspect of data acquirement, storage, recovery, management, manipulation, and visualization. One can find vital lessons and best practices for everything from scientific data to financial and institutional data, technical data, and government data. This is an enthralling book for anyone interested in data management and modern computing.

With the aid of this book users, programmers, administrators, and others who handle data can learn by example from the best data practitioners. Beautiful Data would help data designers by giving insight of data and also will help data managers, and data handlers for a glimpse into some of the most interesting projects involving data. The authors highlight the simple and elegant solutions to problems they encountered along the way. The text helps one explore the opportunities and challenges involved in working with the many number of datasets made available by the web and other sources.

This book also helps one know how to visualize trends using maps and data mashups, and discover the challenges of designing a data processing system that works within the constraints of space travel. It presents upcoming trends and issues on data representation, collection, management, processing, analysis, sharing, and display. Each chapter is mostly a conceptual discussion of approaches to tackling various kinds of challenges involving data, the lifeblood of any application

The book has been edited by Toby Segaran and Jeff Hammerbacher. Toby Segaran was the founder of Incellico, a biotech software company later acquired by Genstruct. He currently holds the title of Data Magnate at Metaweb Technologies and is a frequent speaker at technology conferences. Jeff Hammerbacher is Vice President of Products and Chief Scientist at

Cloudera. Jeff was an Entrepreneur in Residence at Accel Partners prior to co-founding Cloudera. Before Accel, he conceived, built, and led the Data team at Facebook.

The book is organized to touch upon topics from data collection through data storage, organization retrieval, visualization and finally analysis in twenty chapters with inputs from 39 contributors, experts in different domains and dealing with data.

Chapter 1, Seeing Your Life In Data by Nathan Yau gives insight about user created data and personal databases. Yau looks at the motivations and challenges behind two projects in the upcoming field of personal data collection, Personal Environment Impact Report (PEIR) and Your Flowing Data (YFD). PEIR uses mobile technologies to collect data about our surrounding while YFD requires that users actively enter data via twitter. YFD uses twitter's ubiquity so that people can tweet personal data from anywhere they can send SMS messages. Further Yau gives an idea about data storage, data processing and data visualization with reference to PEIR and YFD.

Chapter 2 by Follett and Holm states that if one wants the data, one needs to present it in a way that takes people into the process. **The Beautiful People: Keeping Users in Mind When Designing data collection method**, gives an idea about specific challenges to data collection and discusses the significance of trust, persuasion and testing while collecting data from individuals over the internet.

Chapter 3, Embedded Image Data Processing on Mars by Hughes details how the handling of images on the Mars mission. This chapter concludes that like everything else on a spacecraft, the computing system is custom built with simplicity and other stringent requirements in mind. It gives an idea about slotting the images, passing the images, downloading and processing of images and finally about image compression.

Chapter 4 Cloud Storage Design in a PNUTShell by Brian Cooper, Raghu Ramakrishnan and Utkarsh describes that Yahoo! the software has turned its data centre distributed world wide into

a universal storage platform to power web applications. Yahoo! engineers have a very challenging job wherein Web pages containing potentially complex social data must load and update quickly regardless of where the data may be mastered in servers distributed across the world. This chapter describes PNUTS, a system that aims at supporting Yahoo's websites and application platforms. It is designed to be operated as a storage cloud so as to handle mixed read and write workloads from tenant applications efficiently and support global data replication locally. A comparison of PNUTS with Google's Big table Amazon's Dynamo and Microsoft's Azure SDC is also presented and the architectural differences between these are highlighted.

In Chapter 5 Information Platforms and the Rise of the Data Scientist by Jeff Hammerbacher the author maps out the evaluations of tools for information processing, and also the evaluation of the titles for people who extract data from information platforms and thus the coining of the title 'Data Scientist'. Through this chapter the reader gets a glimpse of Facebook as Jeff cites specific example from the history of Facebook's data team.

Chapter 6 The Geographic Beauty of a Photographic Archive by Jason Dykes and Jo Wood gives attention to the omnipresence and power of vividly visualized spatial data. The authors argue that the beauty in data lies in its depth. They state that as the previously hidden structures and patterns are revealed and when the patterns are spatial, geographical beauty may emerge. Through several examples presented in the chapter, the authors show how one can use data to address the description in an applied context for information management and retrieval.

In Chapter 7 Data Finds Data by Jeff Jonas and Lisa Sokol a new approach to thinking about data that may be implemented to manage data, is presented. The authors hope that this new paradigm of 'Data Finds Data' will inevitably lead to the emergence of even smarter systems, potentially even and contributing to advances in cognitive computing.

Chapter 8 Portable Data in Real Time by Jud Valeski addresses existing limitations of distributing social and locational data in real time across the Internet, and also discusses a likely solution in Gnip, a message oriented middleware service which promises to deliver the Web's data using a middleman data brokerage approach.

Chapter 9 Surfacing the Deep Web by Alon Halevy and Jayant Madhavan describes an approach to surfacing content from the web and making that content accessible through search engine queries. They describe the tools given by Google to make the data presently trapped behind forms on the Net searchable.

Chapter 10 Building Radiohead's House of Cards by Aaron Koblin with Valdean Klump is a story of how Grammy nominated music video for RadioHead's "House of Cards" was created entirely with data, they take us through their experience of lasers, programming and riding on the back of a bus on way to creating an award winning music video using nothing but data.

In Chapter 11 Visualizing Urban Data Michal Migurski gives details on the process of freeing and beautifying data around us. This chapter is a story about Oakland crime spotting, a research project developed to elicit mails from concerned residents and to respond to email-alert subscribers.

In Chapter 12 The Design of Sense.us Jeffrey Heir states that the beauty of data is determined by how it is used as the value of data is proportional to people's ability to extract meaning and inform action. He has presented a case study on the use of interactive visualization to help foster beautiful data in action: the design of sense.us, a web application for collaborative exploration and sense making of 150 years of united states census data.

Chapter 13 What Data Doesn't Do by Coco Krumme is a discussion of the approximation and biases that stand between data and analysis. It describes a set of experiments and tools to help users of a system use data more effectively and draws examples from text in medical, consumers and financial decision making.

Probe

Chapter 14 Natural Language Corpus Data by Peter Norvig helps to understand the power of software development methodology that uses large amount of data to solve ill-posed problems in uncertain environment. The author opines that Natural language tasks like word segmentation or spelling correction can be handled using probabilistic models built from processed large data sets and has cited apt examples to prove his point.

Chapter 15 Life in Data: The Story of DNA by Matt Wood and Ben Blackburn describes the beauty of data that is DNA and the enormous infrastructure involved in creating, capturing and processing that data. The authors explain DNA as a data store and as a data source. They see a bright future for DNA while expressing that the need for efficient sequence search, alignment, and assembly tools, as well as safe housing for the millions of genomes will continue to grow.

Chapter 16 Beautifying Data in the Real World by Jean Claude Bradley displays how crowd sourcing and excessive transparency have combined to move forward the state of drug discovery research. Authors have described the approach they have taken to beautify a set of crowd sourced data by filtering and representing the data in an open form that allows everyone to use it. This they say has, enabled multiple researchers to prepare a variety of tools for visualization and analysis, creating a collaborative network of research.

Chapter 17 Superficial Data Analysis: Exploring Millions of Social Stereotypes by Brendan O'Connor and Lukes Biewald shows some examples of rich set of significant patterns contained in a large, messy data set of human judgments. Authors show the correlation and patterns that emerge when people are asked to anonymously rate one another's pictures. Through the mess of repurposed information, the author say, we will learn about ourselves in completely new ways.

Chapter 18 Bay Area Blues: The Effect of the Housing Crisis by Hadley Wickham, Deborah F. Swayne, and David Poole helps the reader to

look at the data from multiple angles, and it concludes that housing crisis has been relatively more damaging in poorer areas. This analysis is done using open source software and publicly available data. The authors begin by describing the data, how they obtain it, and how they prepared it for analysis by restructuring, transforming, cleaning and augmenting raw data and ultimately describe the useful insight gained from the housing.

Chapter 19 Beautiful Political Data by Andrew Gelman, Jonathan P. Kastellec, and Yair Ghitza shows through examples from the authors' own work how data visualization has augmented the understanding of politics, together with an explanation of issues concerning each choice. The authors state that political data is progressively more accessible and is more frequently plotted and showed on the web and other media. They expect statistical visualization to become important and more widespread in political analysis.

Toby Segaran in Chapter 20 Connecting Data, highlights data integration as an important problem especially with the volume of data available to researchers or any other information searches. Unlike most other chapters in the book, in this chapter, the author rather than discussing a single project, puts together his experience from projects spanning several years. Through these examples, Toby takes the reader through the possibilities of connected data, and possible solutions while establishing that the solutions to the data interpretation problem can bring about many exciting possibilities.

Conclusion

Beautiful data, a collection of personal stories guides the reader through the discovery of beauty of working with data. The authors, 39 of the best practitioners of data, explain how they developed simple and efficient solutions for data problems through a series of projects from domain as varied as politics, geography, crime reporting, creating music videos etc. The authors have followed a easy to comprehend narrative approach to put forth their views and experiences and make reading enjoyable.

DETERMINANTS OF SUCCESS FOR NON FUEL RETAILING: A STUDY ON NON FUEL RETAILING AT PETROL PUMPS

DR. SUDHIR RAJGURU

Reseek

Retailing in India, has been growing at a rapid pace over the past decade. Non fuel retailing is an emerging concept and still lot of growth opportunity is there in this format. Various non fuel retail formats like Reliance AI Plaza (Highways), BPCL – In & Out (Urban within city), IOCL-Kesan Seva Kendra (Rural) are selling FMCG products. This paper is based on the study of various factors which influence the success (sales) of non fuel retail outlets of oil companies. The paper considers the influence of various factors like competitors, consumer buying behavior, brand image, demographic factors, and social factor of oil companies. A conceptual model is proposed, and factor analysis, along with multiple regressions, is used to analyze the data taken on a random basis. The study will help companies to select effective models for targeting customers with an aim to retain the old customers and attract the new one.

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The face of fuel retail in India is no more restricted today to sale of fuel, Oil Marketing Companies(OMC's) in India are today looking at alternate revenue streams to negate some of that retail loss. State run oil companies are expected to log Rs 1, 01,445 cr revenue loss on the sales of petrol, kerosene and domestic LPG this fiscal, despite softening of global crude oil prices. The contribution of non fuel to earning is 39 per cent and 35 per cent in USA and France, in India, non fuel retail contribution is less than 2 per cent of the total fuel sales. Thus, to increase the profits and maintain their positions in Forbes 500 companies all the three OMC's are now trying to use the available free forecourt space for non fuel retailing for the non fuel revenues.

As the non fuel retailing is already a hit in the International market now all Indian oil industry are also thinking of going for non fuel retailing in a planned manner.

Currently, only 4% of the retail market in India is organized and some of the big players in this sector are Reliance Fresh, Spencer, India Bulls Mart, More, Wall Mart and Big Bazaar. While in non fuel retailing currently the market leader are Essar and Shell (private players). In the three oil companies HPCL is the market leader followed by BPCL and Indian Oil in non fuel retailing.

Review of Literature

With the Indian GDP approximately US\$950 billion for financial year 2007 (at current exchange rates of Re and US\$), the total size of the Indian retail market is about 35% of the GDP. Out of this, the size of organized retail (modern retail) is around US\$12 billion. Modern retailing in India is at the point of inflection with the current share of modern retail expected to go up from about 4% to 17% in the next five years and cross 25% in the next ten years. Retail market projection is shown in **Figure One**.

A Study has already been conducted by Indian Oil Corporation in the field of Non-Fuel Retailing, in 2007. It was conducted in India as a national survey, by Technopak Advisors Pvt. Ltd. In this survey they covered the major aspects of Pure

Play retailing and Forecourt Retailing, their feasibility, their technical and financial aspects. A survey was conducted by Shell to launch its 'Shell Helix Express oil change facility and the Rainbow Car Wash'. They found that listening music, snacks, and air conditioned lounge can be provided to the customers while refueling the vehicle.

Forecourt retailers have increasingly turned to non-fuel sales as a means of combating the problem of low fuel margins. Forecourt shops are well placed to cater for consumers with busy lifestyles, offering convenience, ease of access and long opening hours, and forecourt operators have capitalized on this by making available to consumers an expanding range of products and services. Non-fuel retailing at forecourt sites has been beneficial both to oil companies and to grocery retailers. These outlets fit in with the strategies of major supermarket groups - which have been hit by planning restrictions on large out-of-town stores to focus on smaller outlets, while for convenience chains and symbol groups, they offer a means of reaching a wider consumer base. The range of non-fuel products available from forecourt shops is growing and includes items such as cigarettes and tobacco, confectionery, soft drinks, hot and cold snacks, groceries, newspapers and magazines, car care products and barbecue and solid fuel products.

The forecourt retailing market within Western Europe is reaching saturation point and hypermarkets remain a continued threat for fuel retailers. The European Forecourt Retailing Market Outlook is a new management report that analyses the top 10 fuel retailers and investigates their strategies within the fuel retail market, assessing current and future opportunities and threats. The success of the forecourt shop is dependent on a country's maturity of its convenience retailing market as well the consumers' cultural attitudes towards convenience retail outlets. Forecourt shops often fill a gap in the market where convenience retail outlets are restricted, either through cultural attitudes or government legislation. Example of government legislation exists in Germany where

the German Law "LadenschluEgesetz" restricts opening hours for shops from which forecourt shops are exempt. Factors affecting non fuel retailing are depicted in **Figure One**.

Objectives of the Study

- Assessment of current retail scenario and study of oil companies
- Study of consumer behaviour and needs with respect to forecourt retailing.
- Feedback from dealers and retailers regarding performance and acceptability of non fuel retailing.
- To know goods and services people prefer to buy from petrol pumps.
- Factors affecting Buying decisions at petrol pumps.

Methodology

Using the convenience sampling, about 250 samples were collected. Data collection was done through primary information (through survey), and the secondary information which was gathered from journals, magazines, annual reports and internet. Primary data was collected from customers visiting HP, BP and IOCL petrol pumps, Retail marts of competitors like Reliance Fresh Spencer etc., officials of oil companies in Jaipur city.

The data was statistically analyzed by graphs and on SPSS 13.0 by doing first factor analysis and then multiple regressions for judging the factors that affect success of non fuel retail outlets (dependent variable). Questionnaire was designed in such a way that may gather as much information as we need for the project study.

Findings

The analysis of survey leads us to understand that Indian Oil and HPCL have a great stand in the market. But IOCL is the leader due to the widest network and distribution channel. It was observed that people do like the idea of buying goods while refueling of their vehicles. Survey

was conducted where respondent were given different options, which is useful for them in daily life. People do want to buy things more than just grocery and food items. People prefer road maps, car washing, mobile recharge coupons etc. We also observed that factors like advertisement, publicity, quality of goods, variety of products etc. also plays an important role.

With the help of a questionnaire on consumer buying behavior we captured the needs of both segments of urban market, the petrol pump visitors (those surveyed on the fuel stations) and General Population (those surveyed outside the fuel station).

Some of the key findings from the consumer research are as follows:

- Less waiting time and value added services are the most important parameters followed by network or availability of petrol pump, quality and price of fuel for the selection of petrol pump by customers.
- Among these customers 58% of the customers are of the opinion that they will prefer shopping while fuelling if products are of good quality and services provided are also good.
- **Figure Three** shows that in terms of non fuel retail outlets awareness maximum awareness is of Reliance A1 Plaza (62%), then customers are aware about In & Out with 54%, followed by Convenio 41%, HP Speed Mart 43% and Kisan Seva Kendra 24%.

Main reason of awareness about In & Out is its presence in Jaipur and of Reliance A1 Plaza is their presence near Jaipur City and brand image of Reliance.

- **Figure Four** depicts that Grocery 34% is the highest bought category, followed by food items and beverages with 27% and 23% respectively. Other items accounts for 16%.

- **Figure Five** shows an idea about the factor that affect the buying decision of customers most is advertisements 42%. Some other important parameters are variety of products available 38% and the ambience of the place 36%.

Some other factors that come out to be important factors from suggestions of customer are distance of outlet from customers home, network and services provided at outlets.

While talking about public needs or demands from non fuel retail outlets **Figure Six** shows that public desires most for city road maps and least for cyber cafes at petrol pump non fuel retail outlets.

Factor Analysis

After analyzing the primary data from survey. Factor analysis followed by Multiple regression was done. Factor Analysis Using Statistical Package for the Social Sciences (SPSS) Preliminary Analysis for multicollinearity. As there is no significance value less than .05 between the variables, all the correlations between them is less than 0.9 as well as our value of determinant is more then .00001 and is come out to be .000062 we can say that the model is free from the problem of multicollinearity.

Check for Sampling Adequacy

KMO Test

A value of .712 is obtained on doing the KMO test which is greater than 0.5. Hence, the data is fit for the factor analysis (Refer Table-1). Null Hypothesis: There is no correlation between the variables, that is, correlation matrix is an identity matrix. Alternate Hypothesis: There is correlation between the variables. As our significance value is come out to be .000 which is less than .05 we can conclude that the test is highly significant and factor analysis is appropriate (**Refer Table One**).

The **Table Two** consists of communalities before and after extraction, the principal component

analysis works on the initial assumption that all variance is common therefore before extraction all communalities are 1 whereas the communalities labeled in the column labeled extraction reflects the common variance in the data structure.

Total Variance Experienced

Table Three depicts that Eigen Value is the variance explained by that particular factor. From table it is clear that we will extract seven components in our analysis as they have a value greater than one. It is also clear that first variable shows highest variance with the variance of 13.088% and last with the variance of 5.993%. The next column (extraction sum of squared loadings) lists the same values as in the previous column i.e. component 1, except the values for the discarded factors are ignored. The final column i.e. (rotation sum of squared loadings) and the Eigen value of the factor after rotation are displayed. Rotation has the effect of optimizing the factor structure and one consequence for these data is that the relative importance of the two factors is equalized.

Before rotation component-1 accounted for 13.088% however after rotation it accounts for only 9.841% of variance. While the value for last component is 5.993% and 6.887% respectively. Thus the difference between variance is reduced after rotation (**Refer Table Three**).

Scree Plot

Figure Seven helps in determining the number of factors that has to be retained by taking Eigen values on the Y-axis and component number on X-axis.

The scree plot generated by the SPSS shows that a point of inflexion occurs at the component number eight, therefore we retain only seven components i.e. there are five factors that can explain the whole behavior.

Rotation Component Matrix

Table Four shows loading of the variable on the extracted factors. This is the table obtained after Varimax rotation. Factor loading with less than .5

is not shown because we ask these loadings to be suppress. Secondly variables are loaded according to the size of their factor loading as we have selected Sorted by Size. From this table it is clear that there are seven components and what variables which make these components are. Thus, from the data we get from the table and graph that the seven components (after naming) are:

- Convenience: Accessibility, Identification, Brand Name, Timings
- FMCG: Food & Grocery, Food & Beverages
- Environment: Location, Ambience, Music
- Add-ins: Free Mobile Charging, Bill Deposits
- Pricing: Price, Discount
- Kiosks: Juice Centre, Mobile Recharge Coupons, Vehicle Spares and Accessories
- Promotion: Promotion, Valet Parking

Multiple Regression Analysis Using SPSS

After we have done factor analysis for our data, we have found out the various factors which we can make out of our 18 independent variables. We have come up with seven factors, namely: Convenience, FMCG, Environment, Ad-Ins, Pricing, Kiosks, and Promotion.

Now these factors will act as the independent variables for the purpose of multiple regression analysis. We use SPSS for this purpose. Using the enter method we do our multiple regression analysis. The first table produced in the SPSS output sheet is that of the correlations among the different factors and that of the different factors with the dependent variable.

As we can analyse from the **Table Five**, the number of the respondents is 139. Multicollinearity, i.e. the correlation between the different factors is zero because we have already done factor analysis in which we have grouped together all those dependent variables which are correlated to other dependent variables. As a

result the factors which are so derived have no inter-correlation. However from amongst all the factors the highest correlation is that of Convenience with respect to the dependent variable. It is 0.417. Least Correlation is of factor Promotion with dependent variable with a value of .107 Next is the table of Variables entered/removed which tells us about the predictor variables and the method used. The 4th column tells us the method used. As we have used the Enter Method, all the factor variables are included. Here we can see that all of our predictor variables were entered simultaneously. None of the variable is removed or excluded from the regression analysis. This is indicated on **Table Five**.

The **Table Six** depicts that the model summary of our entire study. This table is important. Our R, i.e. the correlation between the observed value and the predicted value of the criterion variable is 0.914, whereas the value of R² is 0.837. This tells us that 83.7% of the variation in our criterion variable is accounted by our model. The Adjusted R Square value tells us that our model accounts for 81.3% of variance in the criterion variable – a very good model!

The **Table Seven** reports an ANOVA which assesses the overall significance of our model. As per this table our F-statistic is 10.492. We consider our model to be significant as we have a significance value of .000 which is less than 0.05.

Refer **Table Eight** for the Standardized Beta Coefficients give a measure of the contribution of each variable to the model. A large value indicates that a unit change in this predictor variable has a large effect on the criterion variable. Accordingly we can see that convenience have the most significant effect on our model and after that comes add-ins, then come the environment, then FMCG, then pricing, then kiosks and then finally comes promotion. The t and Sig (p) values give a rough indication of the impact of each predictor variable – a big absolute t value and small p value suggests that a predictor variable is having a large impact on the criterion variable. As in case of all the predictors our sig (p) < 0.05 that means their overall impact on the model is significant. Also their absolute t-value is quite large.

Result

After obtaining five factors we did multiple regression analysis and used the enter method. Adjusted R² for our model is 81.3% which proves that our model is very good and that 81.3% of the variation in our model is explained by the variables taken. We also have a standard error of 18.7% which shows that there are some exogenous factors other than those we have already included in our model. We derived the following equation from multiple regressions. Regression Equation Non Fuel Retail Success Rate (Sales) = $a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + \dots + b_n x_n$ Non Fuel Retail success rate (Sales) = $2.086 + (0.268 \times \text{Convenience}) + (0.215 \times \text{Add-ins}) + (0.169 \times \text{Environment}) + (.149 \times \text{FMCG}) + (0.131 \times \text{Pricing}) + (0.118 \times \text{Kiosks}) + (0.097 \times \text{Promotion})$.

As per regression equation we can conclude that the most important factor in determining the success rate of our restaurant is Convenience which has the highest b-value of 0.278 among all the factors. This shows that change in Convenience by 1 will change the NFR success by .268. After this Add-ins, then comes Environment, then FMCG, Pricing, kiosks and finally Promotion. Regression equation is basically used to predict the future incidents, so with the help of the above equation we can predict the future success rate of our outlet.

Conclusion

The paper focus on behavior issues of urban consumer for non fuel retailing. It was revealed from the study that people do like the idea of buying goods while refueling of their vehicles. Products of convenience, fast moving consumer goods for which consumer don't want to travel a long distance can be sold at petrol outlets along with the requirement of less waiting time and fast service.

Now oil companies have to find alternative ways to earn profit from non fuel retailing with a look on developing non fuel business in terms of revenue per sq. feet.

Research

Consistency, strong branding and customer orientation are three important pillars for the success of non fuel retail strategy. Oil majors can certainly take the lead to fuel the retail growth collaborating with real estate developers, auto companies, consumer brands, retailers and service providers.

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FIGURE ONE: INDIAN RETAIL MARKET PROJECTIONS

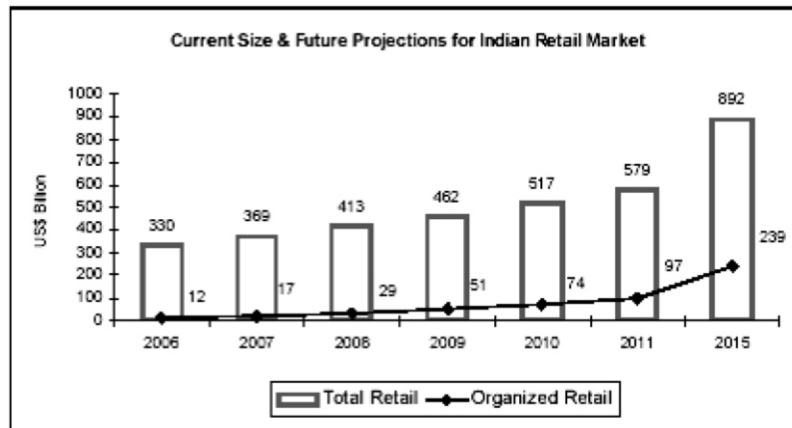


FIGURE TWO: APPROACH FOR NON FUEL RETAILING

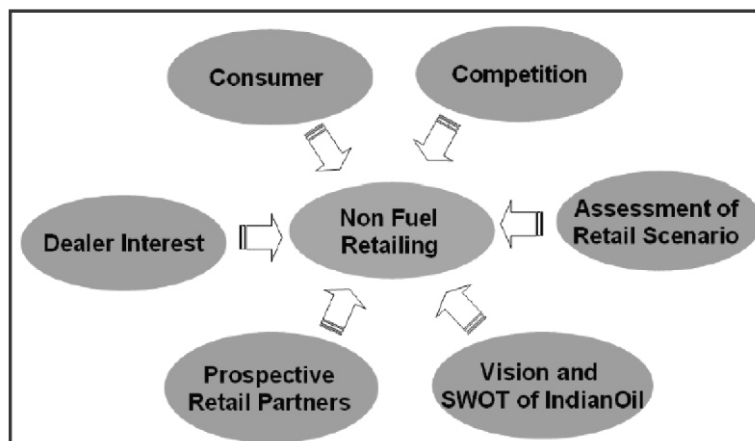


FIGURE THREE: AWARENESS ABOUT VARIOUS RETAIL FORMATS

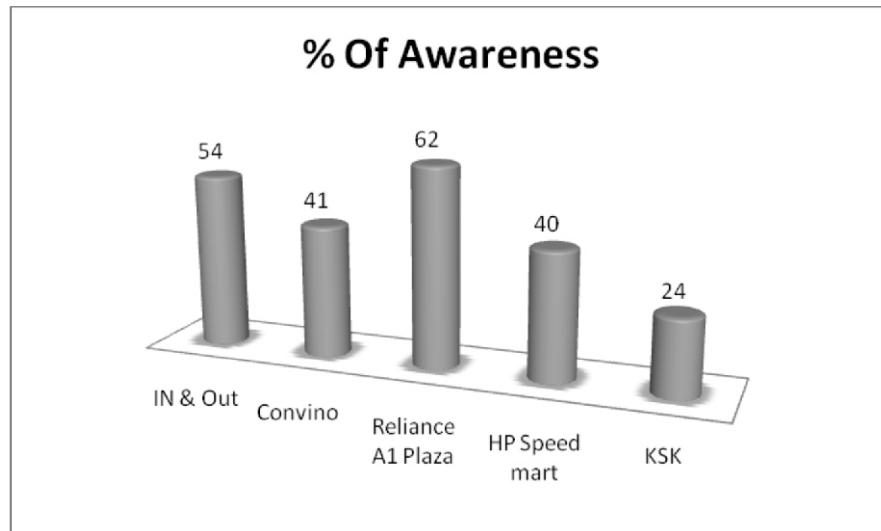


FIGURE FOUR: BUYING BEHAVIOUR

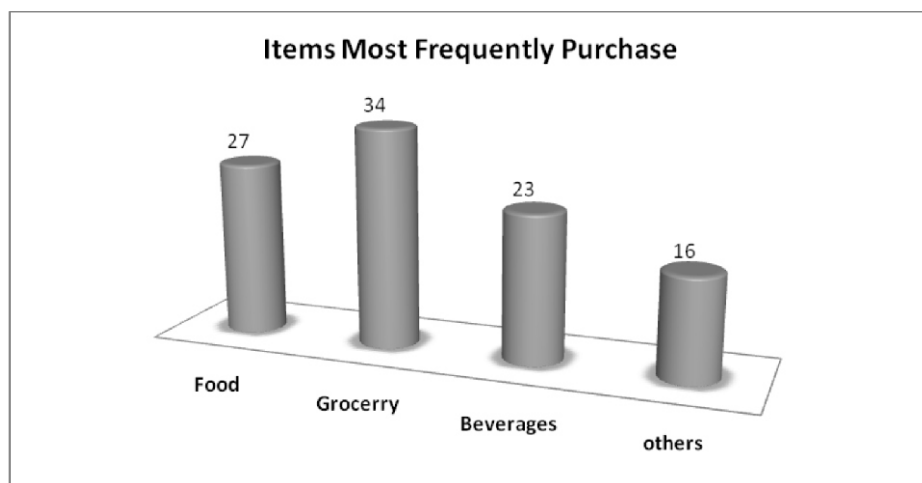


FIGURE FIVE: FACTORS AFFECTING BUYING DECISIONS

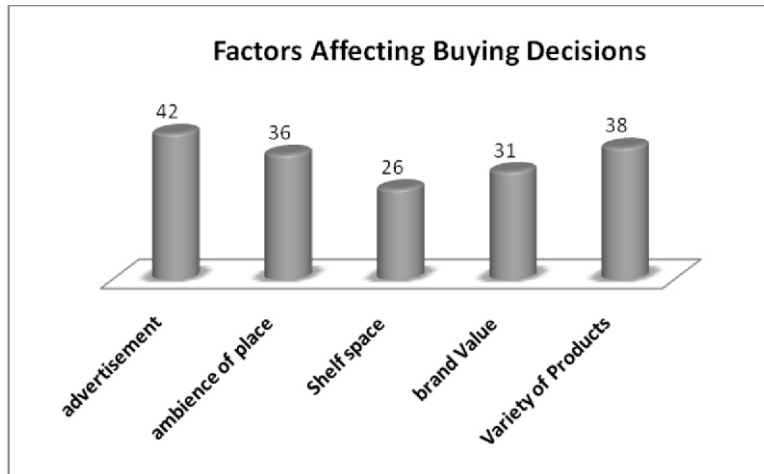


FIGURE SIX : DEMAND FOR VARIOUS ITEMS

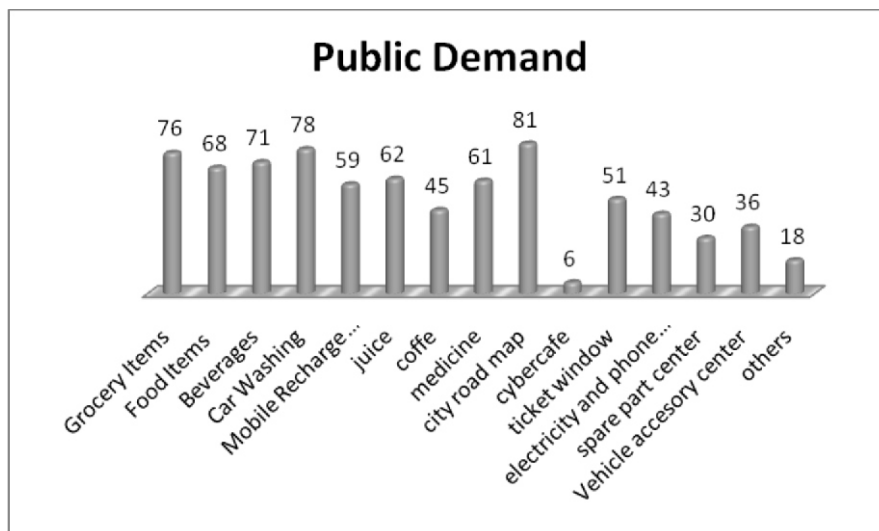


FIGURE SEVEN: SCREE PLOT

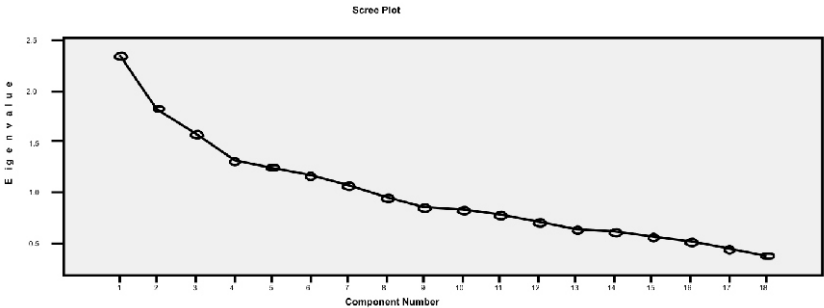


TABLE ONE: KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure Of Sampling Adequacy.		.712
Bartlett's Test of Sphericity	Approx. Chi-Square	273.670
	df	153
	Sig.	.000

TABLE TWO: COMMUNALITIES

	Initial	Extraction
Price	1.000	.462
Location	1.000	.526
Ambience	1.000	.545
Music	1.000	.465
Discounts	1.000	.646
Brand Name	1.000	.627
Identification	1.000	.658
Accessibility	1.000	.709
Promotion	1.000	.622
Valet Parking	1.000	.626
Bill Deposits	1.000	.539
Timings	1.000	.628
F and G	1.000	.715
F and B	1.000	.674
Veh Spare and Accessories	1.000	.583
Free Mobile Charging	1.000	.636
Mobile Recharging	1.000	.553
Juice Center	1.000	.403

Extraction Method: Principal Component Analysis

TABLE THREE: TOTAL VARIANCE EXPERIENCE

Component	Total Variance Explained								
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.356	13.068	13.068	2.355	13.068	13.068	1.771	9.841	9.841
2	1.836	10.198	23.266	1.835	10.198	23.266	1.612	8.958	18.799
3	1.581	8.781	32.067	1.581	8.781	32.067	1.803	8.904	27.702
4	1.328	7.370	39.443	1.328	7.370	39.443	1.516	8.424	36.127
5	1.260	6.999	46.442	1.260	6.999	46.442	1.451	8.062	44.189
6	1.181	6.558	53.000	1.181	6.558	53.000	1.425	7.917	52.106
7	1.079	5.993	58.993	1.079	5.993	58.993	1.240	6.867	58.993
8	.951	5.286	64.278						
9	.867	4.815	69.094						
10	.844	4.688	73.781						
11	.794	4.409	78.190						
12	.710	3.946	82.136						
13	.639	3.549	85.685						
14	.622	3.456	89.141						
15	.583	3.240	92.381						
16	.519	2.881	95.262						
17	.457	2.540	97.802						
18	.396	2.198	100.000						

Extraction Method: Principal Component Analysis.

TABLE FOUR: ROTATED COMPONENT MATRIX

	Component						
	1	2	3	4	5	6	7
Accessibility	.814						
Identification	.774						
Brand Name	.743						
Timings	.67						
F and G		.807					
F and B		.778					
Location			.546				
Music			.531				
Ambience			.514				
Free Mobile Charging				.781			
Bill Deposits				.628			
Price					.736		
Discount					.663		
Juice Center						.689	
Mobile Recharge						.654	
Vehicle Spares Accessories						.521	
Promotion							.712
Valet Parking							.583

TABLE FIVE: CORRELATION MATRIX

		Correlations							
		Sales	RFQR factor score 1 for analysis 1	RFQR factor score 2 for analysis 1	RFQR factor score 3 for analysis 1	RFQR factor score 4 for analysis 1	RFQR factor score 5 for analysis 1	RFQR factor score 6 for analysis 1	RFQR factor score 7 for analysis 1
Pearson Correlation	Sales	1.000	.417	.075	.061	.335	.204	.116	.064
	RFQR factor score 1 for analysis 1	.417	1.000	.000	.000	.200	.000	.000	.000
	RFQR factor score 2 for analysis 1	.075	.000	1.000	.000	.200	.000	.000	.000
	RFQR factor score 3 for analysis 1	.061	.000	.000	1.000	.200	.000	.000	.000
	RFQR factor score 4 for analysis 1	.335	.200	.200	.200	1.000	.000	.000	.000
	RFQR factor score 5 for analysis 1	.204	.000	.000	.000	.000	1.000	.000	.000
	RFQR factor score 6 for analysis 1	.116	.000	.000	.000	.000	.000	1.000	.000
	RFQR factor score 7 for analysis 1	.064	.000	.000	.000	.000	.000	.000	1.000
Sig. (1-tailed)	Sales		.000	.500	.517	.500	.608	.583	.500
	RFQR factor score 1 for analysis 1	.000		.500	.500	.500	.500	.500	.500
	RFQR factor score 2 for analysis 1	.000	.500		.500	.500	.500	.500	.500
	RFQR factor score 3 for analysis 1	.012	.500	.500		.500	.500	.500	.500
	RFQR factor score 4 for analysis 1	.000	.500	.500	.500		.500	.500	.500
	RFQR factor score 5 for analysis 1	.008	.500	.500	.500	.500		.500	.500
	RFQR factor score 6 for analysis 1	.083	.500	.500	.500	.500	.500		.500
	RFQR factor score 7 for analysis 1	.000	.500	.500	.500	.500	.500	.500	
N	Sales	139	139	139	139	139	139	139	139
	RFQR factor score 1 for analysis 1	139	139	139	139	139	139	139	139
	RFQR factor score 2 for analysis 1	139	139	139	139	139	139	139	139
	RFQR factor score 3 for analysis 1	139	139	139	139	139	139	139	139
	RFQR factor score 4 for analysis 1	139	139	139	139	139	139	139	139
	RFQR factor score 5 for analysis 1	139	139	139	139	139	139	139	139
	RFQR factor score 6 for analysis 1	139	139	139	139	139	139	139	139
	RFQR factor score 7 for analysis 1	139	139	139	139	139	139	139	139

TABLE SIX: MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.914(a)	.837	.813	.187	1.717

TABLE SEVEN: ANOVA TABLE

ANOVA ^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.248	7	2.893	10.321	.000 ^a
	Residual	36.716	131	.280		
	Total	56.964	138			

a. Predictors: (Constant), REGR factor score 7 for analysis 1, REGR factor score 6 for analysis 1, REGR factor score 5 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 3 for analysis 1, REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1

b. Dependent Variable: Sales

TABLE EIGHT: COEFFICIENT MATRIX

Coefficients ^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.086	.045		46.462	.000
	REGR factor score 1 for analysis 1	.268	.045	.417	5.947	.000
	REGR factor score 2 for analysis 1	.149	.045	.223	3.009	.004
	REGR factor score 3 for analysis 1	.169	.045	.257	3.314	.004
	REGR factor score 4 for analysis 1	.215	.045	.335	4.779	.000
	REGR factor score 5 for analysis 1	.131	.045	.204	2.907	.004
	REGR factor score 6 for analysis 1	.118	.045	.197	2.162	.005
	REGR factor score 7 for analysis 1	.097	.045	.164	1.909	.005

a. Dependent Variable: Sales

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To be globally responsive and socially conscious, committed to innovation and creativity by developing and disseminating knowledge and practice for learning and resource use optimization. And to emerge as an organization with an optimal blend of value based growth and future preparedness, leading to prosperity of the society and nation at large.

Mission:

"We stand committed with a spirit of enterprise, will to succeed, zeal to grow and objective-achievement orientation through value based education for community at large by creating an environment of intellectual stimulus, scientific orientation and social responsibility".

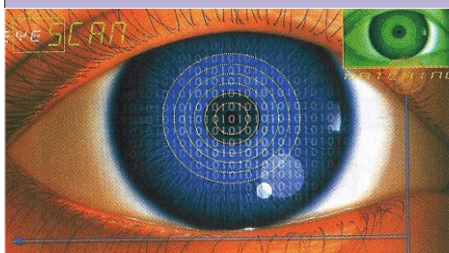
Goals:

- To develop a comprehensive worldview in the students with respect for all forms of life and foster an environment where people work together and are motivated to succeed.
- To inculcate the zeal for individual excellence and yet reinforce the importance of team work.
- To support a proper harnessing of latent talents and to encourage the students to take initiatives.
- To provide an environment, in which the students and the faculty are driven by the spirit of enquiry in their quest for knowledge.
- To Enhance logical, creative and analytical skills.

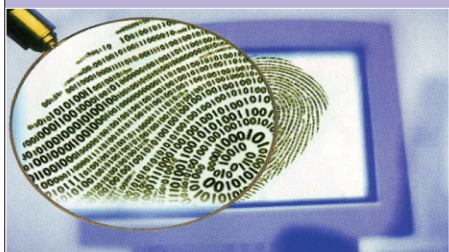
A Heritage of Vision • A Legacy of Innovation



INTERNATIONAL
SCHOOL
of INFORMATICS &
MANAGEMENT^{JAIPUR}
(Formerly India International Institute of Management)
A Heritage of Vision A Legacy of Innovation



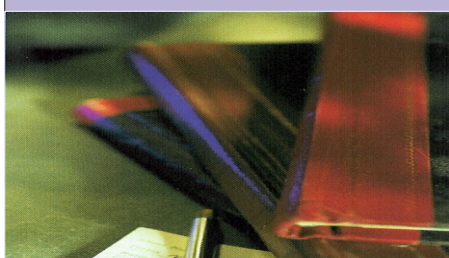
Vistas



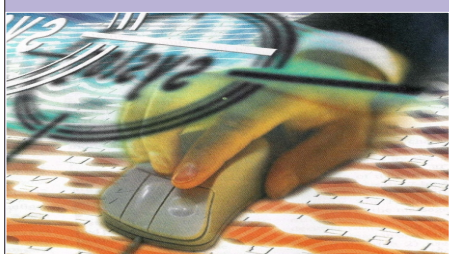
In Focus



Fact File



Probe



Research

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